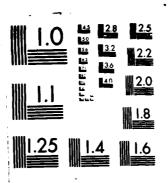
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TAEG REPORT NO. 69 PERSONNEL ATTRITION FROM
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# PERSONNEL ATTRITION FROM NAVY ENLISTED INITIAL TECHNICAL TRAINING

Gary W. Hodak Morris G. Middleton William C. Rankin Clarence J. Papetti

Training Analysis and Evaluation Group

March 1979

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ALFRED F. SMODE, Ph.D., Director Training Analysis and Evaluation Group WORTH SCANLAND, Ph.D. Assistant Chief of Staff for Research and Program Development Chief of Naval Education and Training SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

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Training Attrition			
Training Aptitude Requirements			
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Attrition of personnel during the area of concern in the all-volunte			
training environment has been perc	elved to be aging	A2 courses to	

examine factors associated with academic attrition

identify the extent and pattern of attrition in these courses

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determine the aggregate and course specific costs of academic and nonacademic attrition.

Extensive data are provided. Major variables studied include academic attrition, nonacademic attrition, qualified vs. unqualified personnel inputs, and cost per graduate. Comparisons are drawn from FY 76 and FY 77 data bases.

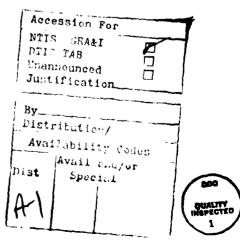
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## SECTION I

#### INTRODUCTION

"Attrition represents a reduction of the effectiveness of a force caused by loss of personnel and material. Attrition rate is normally expressed as a percentage, reflecting the degree of losses of personnel or nonconsumable supplies due to various causes within a specified period of time." Personnel who attrite from Navy class "A" schools are a major concern of the Naval Education and Training Command (NAVEDTRACOM) since a major portion of the Chief of Naval Education and Training's (CNET) resources (billets and dollars) are devoted to this type of training.

A previous Training Analysis and Evaluation Group (TAEG) study<sup>2</sup> (hereafter referred at an TAEG Report 47), examined the extent and the cost of attrition from initial enlistment technical training courses (specifically, Al and A3 courses). The planning for the study took into consideration the fact that attrition from technical training had not received adequate attention. Consequently, a perspective on attrition attributable to technical training variables (academic and nonacademic) was desirable. A summary of the significant findings of TAEG Report 47 is presented below. In addition, detailed comparisons are made between these findings and those of the present study in subsequent sections of the report.

- Total attrition in 147 Al and A3 courses was 7.4 percent (6,446) of total enrollment (86,660) during FY 76, equally distributed between academic and nonacademic types.
- Ten courses had academic attrition equal to or greater than 10 percent of annual enrollment. Only three courses had nonacademic attrition equal to or greater than 10 percent.
- Total cost for 118 courses analyzed in the study for FY 76 was \$254,308,000. Of this total the costs of academic and nonacademic attrition were \$8,800,000 and 5,400,000 respectively.
- A relatively small number of courses account for a "majority" of attrition costs. (Fifteen courses accounted for 72 percent of the total academic attrition cost.)
- . Fourteen percent of the inputs to the 147 Al and A3 courses were waived; i.e., did not meet minimum Armed Services Vocational Aptitude Battery (ASVAB) course entrance requirements. Waived trainees produced significantly greater academic attrition than qualified trainees.

Dictionary of the United States Military Terms for Joint Usage. Joint Chiefs of Staff, Publication 1. 1 February 1964. Washington, D.C. 20301.

Middleton, M., Rankin, W., Green, E. and Papetti, C. <u>Academic Attrition from Navy Technical Training Class "A" School Courses</u>. TAEG Report 47. July 1977. Training Analysis and Evaluation Group, Orlando, FL 32813. AD A044029.

Setbacks; i.e., trainees who repeat some portion of a course, represent a potentially greater area of uncertainty than course attrition. Setbacks represent 16 percent of enrollment. Their cost and attrition implications are for the most part unknown.

## **PURPOSE**

The purpose of the present study is to refine and employ the techniques developed by TAEG and to extend the attrition data base for Al and A3 courses to include FY 77 data. Expanding the data base to include FY 77 permits a comparison of the attrition problem over time; i.e., trends can be examined over successive fiscal years. The long-term goals of TAEG's attrition study program remain:

- . identify those factors associated with academic attrition
- determine the overall and course-specific costs of academic attrition
- . identify the extent and pattern of attrition in class Al and A3 courses
- suggest corrective courses of action for monitoring, controlling, or reducing academic attrition.

#### **APPROACH**

The approach taken in this study is similar to that reported in TAEG Report 47 in that data sources for a specified time period containing information on training personnel and costs were exhaustively analyzed. The major variables investigated were the numbers of personnel trained in Al and A3 courses, their associated costs, numbers of attrites and setbacks, and academic aptitude. The emphasis focused on Navy enlisted class A courses since 70 to 80 percent of the graduates of recruit training are input to these courses, and the bulk of the Navy man-hours of first enlistment training occurs in this setting. Both academic and nonacademic attrition were examined; however, it was hypothesized that academic attrition would have the greater potential for affecting change through training management options.

# ORGANIZATION OF THE REPORT

In addition to this Introduction, three major sections are provided. Section II presents the rationale for and the data sources used in the analyses and describes the analyses performed. Section III presents the results of the analyses in graphic and tabular form which include relevant FY 76 and FY 77 data comparisons. Section IV summarizes the major findings of the study with appropriate recommendations.

In addition, four appendices are included. Appendix A, compiles the attrition and cost data used in the various analyses. Appendix B provides information on qualified and unqualified personnel. Appendix C compares all courses common to both FY 76 and FY 77 on selected variables. A continuation of the comparisons in appendix C, restricted to cost data, is shown in appendix D.

#### SECTION II

#### **APPROACH**

This section describes the sources of data, the data elements employed and the analyses performed. The analyses do not exhaust the analytical options that might have been used; however, those included were deemed most pertinent, relevant and meaningful, given the available data. These analyses are identical to those described in TAEG Report 47. They are described here again for the sake of completeness and continuity. A unique aspect of this report is the comparison of the FY 76 and FY 77 data bases in each analysis.

#### PRELIMINARY DESCRIPTIVE ANALYSIS

The initial effort of this study was to examine the magnitude and variability of attrition among Al and A3 courses. The rationale was to let actual attrition data suggest problem areas as well as hypotheses about possible correlates of attrition. This purely descriptive analysis of attrition also served as a baseline for subsequent analyses.

# DATA SOURCE: NAVY INTEGRATED TRAINING RESOURCES AND ADMINISTRATIVE SYSTEM (NITRAS)

The NITRAS is an automated training information system designed to provide direct support information for the CNET, Chief of Naval Personnel and the Navy Recruiting Command. The NITRAS consists of four files, two of which were utilized in this study and are described below:

Master Course Reference File (MCRF). The MCRF collects and standardizes at one central point all formal training course data elements, schedules, and input/requirements plans. It is a compilation of student planned enrollment on the course/class level. It interfaces with various automated systems to provide Navy training reports.

Training Summary File (TSF). The TSF is a repository for training summary statistics for all training courses. It provides the capability to monitor average trainees on board, course achievement, numbers of trainees under instruction, attrition, and other variations of statistical data.

The data utilized in this preliminary descriptive analysis were acquired from the CNET TSF Reports 1500-1207 and 1500-1208 which are extracts from the TSF containing all FY 77 data on attrition. The data elements used from this report are listed below. Equations 1, 3, 5 and 7 were derived for utilization in the analysis of data and are based on the formulas identified here as formulas 2, 4, 6 and 8, respectively. These latter formulas are taken from the NITRAS Reports Manual, and applied to CNET Report 1500-1207.

- Input Actual number of students enrolling during the current fiscal year
- . Grads Actual number of students graduating during the current fiscal year

- Standard attrition (percent). This value is the CNTECHTRA approved maximum acceptable rate of attrition for a particular course.
- Attrition total (number)

$$TA = \frac{Percent \ attrition \ total \ (enrollments + graduates)}{2 - percent \ attrition \ total} \tag{1}$$

Attrition total (percent)

Percent TA = 
$$\frac{\text{Total attrition}}{\text{Total attrition} + \text{enrollments} + \text{graduates}}$$
(2)

Academic attrition (number)

$$AA = \frac{\text{Percent academic attrition (enrollment + graduates})}{2 - \text{percentage academic attrition}}$$
 (3)

Academic attrition (percent)

Percent AA = 
$$\frac{\text{Academic Attrition}}{\frac{\text{Academic attrition + enrollment + graduates}}{2}}$$
 (4)

Nonacademic attrition (number)

$$NAA = \frac{Percent \ nonacademic \ attrition \ (enrollment + graduates)}{2 - percentage \ nonacademic \ attrition}$$
 (5)

Nonacademic attrition (percentage)

Percent NAA = 
$$\frac{\text{Nonacademic attrition}}{\frac{\text{Nonacademic attrition} + \text{enrollments} + \text{graduates}}{2}}$$
 (6)

Setback (number)

$$SB = \frac{Percent total setback (enrollments + graduates)}{2 - percent total setback}$$
 (7)

Setback (percentage)

Percent SB = 
$$\frac{\text{Total setbacks}}{\text{Total setbacks} + \text{enrollments} + \text{graduates}}$$
 (8)

It was determined from TSF Report 1500-1208 that there were data for 156 Al and A3 courses. Using equations 1 through 8, basic descriptive statistical summaries were calculated and inspected. Relatively few courses were found to have academic attrition greater than 10 percent. Therefore, it was decided to depict class intervals of 0 through 10 percent in 1 percent increments and to group an open interval for courses greater than 10 percent.

## **CORRELATON ANALYSIS**

Several hypotheses concerning possible relationships between course variables and attrition were identified from the original analysis, and correlation analyses were performed to test these hypotheses. Data on selected variables were obtained from TSF Report 1500-1208. In addition, the minimum aptitude requirements for entering a course were obtained from the MCRF. This variable was expressed in terms of the minimum ASVAB scores required to qualify an individual for specific "A" courses. The variables that were deemed appropriate for examination included:

- course length (days)
- number of course convenings minimum ASVAB
- student input
- student graduates
- standard attrition percentage
- percentage setback
- total attrition
- nonacademic attrition
- academic attrition

#### WAIVER ANALYSIS

The availability or qualifications of incoming personnel often do not match the manpower requirements of the Navy. Thus, in spite of minimum (ASVAB) requirements for entry into most "A" courses, some personnel who do not meet minimum aptitude requirements are still admitted to these courses as waived students. Chi-square analyses were run for each course to test the hypothesis that the proportion of unqualified attrites was not significantly greater than the proportion of qualified attrites.

DATA SOURCES: CNET REPORT 1500-1120, CNTECHTRA MONTHLY AND CUMULATIVE STUDENT ATTRITION REPORT AND CNET REPORT 1500-1121, CNTECHTRA MONTHLY CUMULATIVE STUDENT QUALITY REPORT

These reports are extracted from the same NITRAS data base as the Training Summary File reports. Report 1500-1120 contains monthly and cumulative data on student attrition reported by Course Data Processing (CDP) Code and Unit Identification Code (UIC) by academic and nonacademic categories, mental group, USN/USNR, and other variables. Report 1500-1121 contains monthly and cumulative data on student accessions. This latter report summarizes trainee accessions by mental groups and the number of qualified and nonqualified persons entering courses based upon minimum ASVAB scores.

#### ATTRITION COST ANALYSIS

A prescribed remedy for any attrition problem regardless of its magnitude must be tempered by cost. High attrition percentages do not necessarily mean high attrition cost; low percentage attrition courses may still reflect a very high cost due to large throughput and/or a high cost of training. The purpose

TABLE 5. COURSES IN WHICH UNQUALIFIED STUDENTS (WAIVERS) ATTRITED AT SIGNIFICANTLY HIGHER RATES THAN QUALIFIED STUDENTS

CDP	SHORT TITLES	CIN	CHI-SQUARE
6001*	QM-A	A-061-0012	39.59
6002*	QM-A	A-061-0012	6.93
6005*	SM-A	A-061-0011	5.55
6006*	SM-A	A-061-0011	3.86
6015*	SURF-ST CLASS A	A-130-0037	16.99
6025	GMT-A	A-644-0014	13.32
6027	FTA-A	A-113-0010	6.92
6053*	CTO-A	A-580-0016	11.27
6059	SK CLASS A	A-551-0014	23.29
6068	MR/A	A-702-0019	15.27
6102	PN-A	A-500-0014	4.35
6120*	HT-A1	A-780-0035	6.17
6125	MS-A	A-800-0013	19.75
6131	DS-A	A-150-0025	4.12
6137	ET-A-3N	A-102-0010	8.74
6142*	OSA	A-221-0011	88.40
6144*	RMA	A-202-0014	51.27
6172	STS-CLASS-A	A-130-0029	3.94
6206	SH-A	A-823-0012	11.96
6240	AVA-AQ-A1	C-100-2013	4.67
6241	AVA-AX-A1	C-100-2013	14.44
6242*	AVA-TD-A1	C-100-2013	7.84
6244*	AFTA-AT-A1	C-100-2010	6.72
6260	BT-A	A-651-0010	17.09
6262	MMA	A-651-0015	6.32
6264	ET-A1-CTM ET-A1-ETR AC-A1 CTR-A CTT-A-PREP	A-100-0012	6.53
6265		A-100-0012	24.48
6278*		C-222-2010	14.20
6301*		A-231-0044	9.40
6302*		A-231-0023	6.06
6320	CTT-SPE-NONMORSE	A-231-0046	8.51
6377	FTG-A1	A-113-0010	9.02
6380	RM-A-SEA	A-202-0026	3.88
6501*	ADJ-A1	C-601-2010	5.08
6513	ABE-A1	C-680-2012	7.06

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	CONVEN (1)	MIN ASVAB (2)	INPUT (3)	GRADS (4)	STD ATTR % (5)	TOT SETBACKS ATTRIT (6) (7)	TOT ATTRIT (7)	NONACAD ATTRIT (8)	ACAD ATTRIT (9)
COURSE LENGTH	.041	.176	127	117	.332	.273	.058	.001	.123
NO. OF CONVEN. (2)		.181)	.437	.445	.105	.062	.343	.204	.147)
MIN ASVAB (3)			.006 (001)	.022	110	044	.001	.007	.022
NO. INPUT (4)				. 993	.177	.357	. (.749)	.756	.537
NO. GRADS (5)					.152	.333	.763	.715	.499
ATTR STD % (6)						.339	.386	.216	.486
SETBACKS (7)							.379	.184	.508
TOT ATTRIT NUMBER (8)								.901 (116.)	.726
NONACAD ATTRIT (9)									.361

TABLE 4. CORRELATIONS WITH ATTRITION (FY 76 VS. FY 77)

FY 76 correlations in parentheses( )

## OUTPUT

		Nonacademic Attrition & Grads	Academic Attrition	Total
	Qualified	53,816	1,920	55,736
Input	Nonqualified	10,090	827	10,917
	Total	63,906	2,747	66,653

The chi-square value for this analysis was 393.11, again indicating that waived students attrite at a higher rate. Column 14 of appendix B gives the chi-square for all courses for which waiver data were available.

## COST ANALYSIS

The attrition costs cited in this section are average costs. It is recognized that these costs are useful primarily for assessing the relative magnitude of the cost of attrition for long range planning, but are of little value to managers and decision makers who must make the short range operational decisions. Marginal costs are always the appropriate costs for short range decision making. However, the development of marginal costs requires the identification of alternative. strategies for reducing attrition in the short term. Such strategies were not addressed in this study. Regardless of the specific attrition-reducing strategies employed, the only estimate of marginal cost savings which is independent of any specific policy for affecting attrition is, and therefore appropriate to this study, student salaries. In this study marginal costs are computed by multiplying attrition weeks by the student salary costs. These estimates are presented in appendix A.

It was not the intent of this study to account for <u>all</u> course and attrition costs but rather to use all readily available data to show the relative impact of attrition on training resource utilization. The data for the preceding analyses were based on 156 Al and A3 courses. However, from the courses listed in this data base, course cost for only 124 courses was available. The total cost for the 124 courses during FY 77 was \$231,888,000 which includes all direct and indirect costs associated with the courses. Utilizing equation 1 of section II, page 8, the total cost of attrition (both academic and nonacademic) was found to be \$13,164,000 for FY 77. Thus, 5.67 percent of the resources applied to these 124 courses was expended on personnel who attrited. Table 6 presents a summary comparison of the overall costs for FY 76 and FY 77.

Tables 7 and 8 present frequency distributions for (1) total annual cost per course and (2) the annual cost of attrition per course, both with cumulative numbers and cumulative percents. Additionally, in these tables, as well as in all the tables that follow, a comparison between FY 76 and FY 77 data is presented. The significant features of table 7 are as follows:

The number of courses with an annual cost of less than \$1 million remained relatively stable.

- . Twenty-five courses have attrition equal to or greater than 15 percent.
- Attrition decreased in seven courses.
- PM-A school had the greatest increase in attrition (from 9 to 21 percent).

#### CORRELATION ANALYSIS

The results of the above analysis give an indication of the scope of the problem of academic and nonacademic attrition and the trends from FY 76 to FY 77. To ascertain the interrelationships of the variables that could have some bearing on attrition, data on nine variables for the A1 and A3 courses were intercorrelated. Table 4 presents the results of this analysis in matrix format. Correlation data for FY 76 are also included, in parentheses, for comparison purposes. Column 9 of table 4 shows the correlations between academic attrition and nine other course variables. Most of the relationships are fairly straightforward when sheer numbers of students put through courses annually are considered.

Overall, the table indicates that FY 77 results parallel the FY 76 results. As indicated in TAEG Report 47, understanding the relationship between setbacks and academic attrition requires much more data than were available for this study.

# WAIVER ANALYSIS

Individual course data on waivers and academic attrition were analyzed by chi-square tests on the hypothesis that the proportion of qualified attrites was not significantly different than the proportion of unqualified attrites who succumbed to academic attrition. A significant chi-square, at the p $\leq$ .05 level of statistical confidence, was any computed value of the chi-square statistic for a course that equalled or exceeded 3.841. This indicated that unqualified trainees in these courses had a significantly higher rate of ASVAB academic attrition than ASVAB qualified trainees. Course data extracted from CNET Reports 1500-1120 and 1500-1121 were utilized for this analysis. Table 5 contains a listing of courses with significant chi-squares. It should be noted that 17 of the 33 courses that had significant chi-squares in FY 76 reappear on the FY 77 list. Course data from 1500-1120 and -1121 for the FY 76 study were not fully matured (less than 12 months for a number of courses). Therefore, comparison with FY 77 data (full year) would be misleading. Appendix B contains the available waiver data for FY 77.

In the overall analysis of all courses in appendix B, the following relationship between qualification and attrition was observed.

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TABLE 3. COURSES HAVING TOTAL ATTRITION (ACADEMIC AND NONACADEMIC) EQUAL TO OR GREATER THAN 10 PERCENT (continued)

CDP	SHORT TITLE	CIN	LOCATION		CENT ITION
			,	FY76	FY77
6146*	PLRS-POS-ELECT-A	A-121-0142	Dam Neck	14	17
6264*	ET-A1-CTM	A-100-0012	Great Lakes	12	17
6006*	SM-A	A-061-0011	San Diego	12	18
6206	SH-A	A-823-0012	Norfolk ~	8	18
6302*	CTT-A-PREP	A-231-0023	Corry	12	18
6047*	QM-A	A-670-0018	Great Lakes	16	19
6260	BT A	A-651-0010	Great Lakes	7	19
6278*	AC-A1	C-222-2010	Memphis	16	20
130E	NUC PWR	A-661-0010	Orlando	-	21
6076	PM-A	A-790-0012	San Diego	9	21
6126*	QRTR-MSTR-BASE	A-772-0010	New London	12	22
6451	ÈW CM TECH	A-102-0214	Corry	_	23
6452	RES EM CM TECH	A-102-0214	Corry	-	23
6301*	CTR-A	A-231-0044	Corry	21	24
6299*	EW-OP-TECH	A-102-0155	Corry	43	27
6178*	EW-OP-MAINT/TECH	A-102-0154	Corry	17	28
6418	DIVER SECOND	A-433-0022	Washington, D.C.	-	46

CDP - Course Data Processing Code CIN - Course Identifying Number

<sup>\*</sup> Course had total attrition equal to or greater than 10 percent in FY 76.

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TABLE 3. COURSES HAVING TOTAL ATTRITION (ACADEMIC AND NONACADEMIC) EQUAL TO OR GREATER THAN 10 PERCENT

CDP	SHORT TITLE	CIN	LOCATION	PERO ATTRI	
				FY76	FY77
6 <b>005</b>	SM-A	A-061-0011	Orlando	5	10
6036	TM-OP-A/S-TORP	A-123-0127	Orlando	1	10
6102*	PN-A	A-500-0014	Meridian	13	10
6172	STS CLASS A	A-130-0029	San Diego	5	10
6245	AFTA-AQ-A1	C-100-2010	Memphis	9	10
6053	CTO-A	A-580-0016	Corry	9	13
6068	MR/A	A-702-0019	San Diego	8	11
5309	SCAT-MOD-1	A-100-0035	New London	9	12
6041*	MN/A	A-647-0016	Charleston	23	12
6057*	YN-A	A-510-0012	Meridian	17	12
6065*	MUSIC BASIC	A-450-0010	Little Creek	15	12
6131*	DS-A	A-150-0025	Mare Island	10	12
6144*	RMA	A-202-0014	San Diego	17	12
6265*	ET-A1-ETR	A-100-0012	Great Lakes	10	12
6419	SCUBA DIVER	A-433-0023	Washington, D.C.	-	12
6002	QMA	A-061-0012	San Diego	4	13
6027*	FTA-A	A-113-0010	Great Lakes	12	13
6093	TM SUB/TORP TECH	A-123-0127	Orlando	1	13
6263	ET-A1-ETN	A-100-0012	Great Lakes	9	13
6457	ET (SU) EW TECH	A-102-0224	Corry	-	13
6478	CTM EW TECH	A-102-0234	Corry	-	13
6025	GMT-A	A-644-0014	TRAGRUPAC	9	14
6078	EA-A	A-412-0010	PT HUE	2	14
6239*	AVA-AT-A1	C-100-2013	Memphis	11	14
6241*	AVA-AX-A1	C-100-2013	Memphis	15	14
6529	ISA	A-242-0010	Lowry	6	14
6536	TM-AS-TORP-TECH	A-123-0127	Orlando	Ŏ	14
6001	QMA	A-061-0012	Orlando	ž	15
6020	CTA-A	A-510-0015	Corry	7	15
6240*	AVA-AQ-A1	C-100-2013	Memphis	12	15
6377	FTG-A1	A-113-0010	Great Lakes	_	15
6476	EW FUND/PM TECH	A-102-0209	Corry	-	15
6537*	AW-AT	C-210-2010	Memphis	12	15
6341	OT A	A-210-0011	FLEASWTRACENPAC	-	16
6142	OSA	A-221-0011	Great Lakes	8	17

. Input to these courses was 8.4 percent (7,303) in FY 76 and 13.7 percent (12,064) in FY 77 of the annual enrollment.

Courses having nonacademic attrition equal to or greater than 10 percent are listed in table 2. Comparison to FY 76 data reveals:

- . The number of courses increased from three in FY 76 to ten in FY 77 (a 233 percent increase).
- . Two of the three courses contained in the FY 76 list reappear on the FY 77 list.
- . In FY 77 four of the ten courses listed also had academic attrition greater than 10 percent.

TABLE 2. COURSES HAVING NONACADEMIC ATTRITION EQUAL TO OR GREATER THAN 10 PERCENT

CDP	SHORT TITLE	CIN	LOCATION		PERCENT ATTRITION
				FY76	FY77
6126	QRTR-MSTR-BASE**	A-772-0010	New London	9	10
6142	OSA	A-221-0011	Great Lakes	5	10
6299*	EW-OP-TECH**	A-102-0155	Corry	39	10
6047*	QM-A	A-670-0018	Great Lakes	11	11
6419	SCUBA DIVER	A-433-0023	Washington, D.C.	-	12
6478	CTM EW TECH	A-102-0234	Corry	-	13
6078	EA-A	A-412-0010	PT HŬE	2	14
6178	EW-OP-MAINT/TECH**	A-102-0154	Corry	3	17
6260	BTA	A-651-0010	Great Lakes	7	19
6418	DIVER SECOND**	A-433-0022	Washington, D.C.	-	37

CDP - Course Data Processing Code CIN - Course Identifying Number

Table 3 contains those courses which have a total (academic plus nonacademic) attrition level greater than or equal to 10 percent. Comparing FY 77 to the FY 76 data reveals the following:

- . The number of courses increased from 31 in FY 76 to 52 in FY 77 (68 percent).
- Twenty-two of the original thirty-one courses (FY 76) reappear on the FY 77 list.

<sup>\*</sup> Course had nonacademic attrition equal to or greater than 10 percent in FY 76.
\*\* Course also had academic attrition equal to or greater than 10 percent.

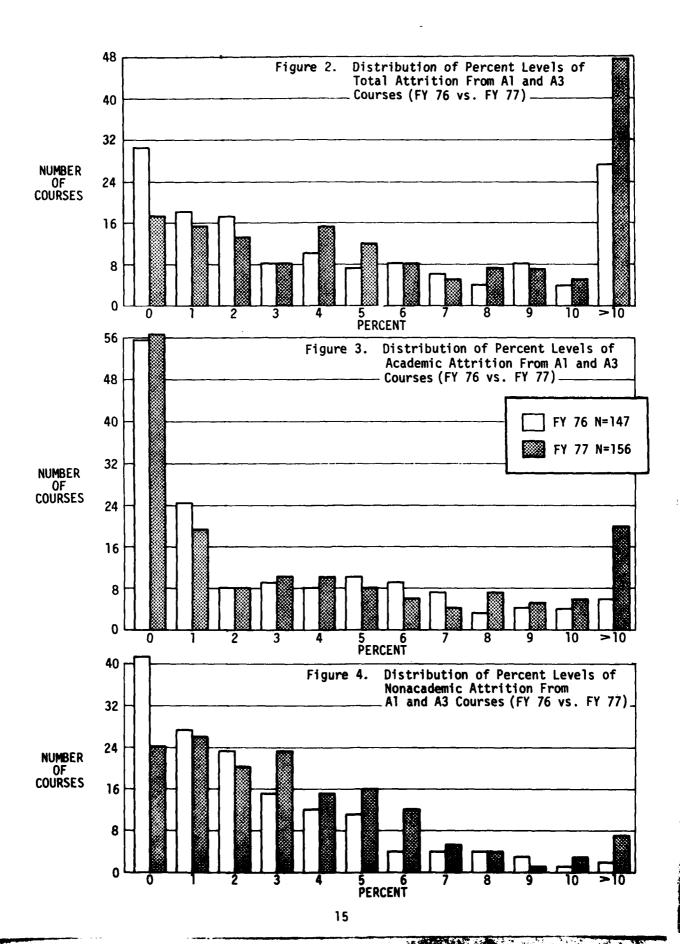
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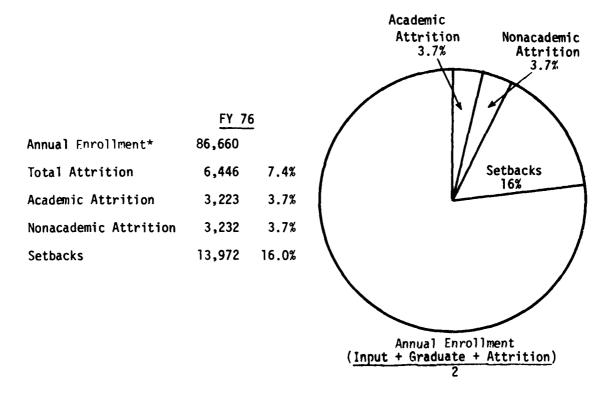
TABLE 1. COURSES HAVING ACADEMIC ATTRITION EQUAL TO OR GREATER THAN 10 PERCENT

CDP	SHORT TITLE	CIN	LOCATION	PERCE ATTRIT	
				FY76	FY77
6020	CTA-A	A-510-0015	Corry	5 0	10
6093	TM-SUB/TORP TECH	A-123-0127	Orlando -	0	10
6240	AVA-AQ-AI	C-100-2013	Memphis	5	10
6264*	ET-A1-CTM	A-100-0012	Great Lakes	10	10
6529	IS A	A-242-0010	Lowry	4	10
6537	AW-A1	C-210-2010	Memphis	6	10
6002	QMA	A-061-0012	San Diego	6 2 9	11
6131	DS-A	A-150-0025	Mare Island	9	11
6146	PLRS-POS-ELECT-A	A-121-0142	Dam Neck	8	11
6001	QMA	A-061-0012	Orlando	1	12
6006	SM-A	A-061-0011	San Diego	9	12
6341	OT A	A-210-0011	FLEASWTRACENLANT	-	12
6126	QRTR-MSTR-BASE	A-772-0010	New London	4	13
6178*	EW-OP-MAINT/TECH	A-102-0154	Corry	14	13
6418	DIVER SECOND	A-433-0022	Washington, D.C.	-	13
6457	ET(SU) EW TECH	A-102-0224	Corry	-	13
130E*	NUĈ PWR	A-661-0010	Orlando	18	14
6302*	CTT-A-PREP	A-231-0023	Corry	10	14
6536	TM-AS-TORP-TECH	A-123-0127	Orlando	0	14
6206	SH-A	A-823-0012	Norfolk	7	15
6076	PM-A	A-790-0012	San Diego	7	16
6301*	CTR-A	A-231-0044	Corry	17	16
6278*	AC-A1	C-222-2010	Memphis	12	17
6299	EW-OP-TECH	A-102-0155	Corry	6	19
6451	EW CM TECH	A-102-0214	Corry	, <b>-</b>	19
6452	RES EM CM TECH	A-102-0214	Corry	-	23

CDP - Course Data Processing Code CIN - Course Identifying Numbers

 $<sup>\</sup>star$  Courses having academic attrition equal to or greater than 10 percent in FY 76.





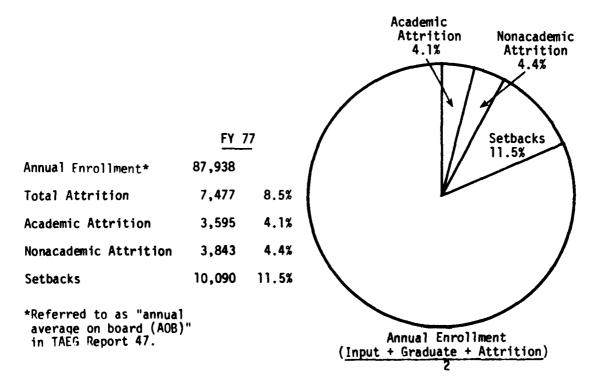


Figure 1. Relative Proportions of Attrition (FY 76 vs. FY 77)

## SECTION III

## **RESULTS AND DISCUSSION**

This section presents the results of the descriptive, correlation, waiver, and cost analyses. Tables of data summaries for FY 77 attrition, FY 77 qualified and unqualified trainee attrition, and FY 76 vs. FY 77 comparisons used to support the rationale for the inferences and conclusions discussed in this section are provided in appendices A, B, C and D.

#### PRELIMINARY DESCRIPTIVE ANALYSIS

Figure 1 provides a perspective of the magnitude of attrition in Navy Al and A3 courses for FY 76 and FY 77. FY 76 data were based on 147 courses whereas the FY 77 data were based on 156 courses. Comparison of these fiscal periods reveals that for 133 courses data were available during two years. This is accounted for by the addition and deletion of courses during the latter fiscal period. This comparison reveals that enrollment of students during FY 77 was 1.5 percent higher than that of FY 76 (87,938 vs. 86,660). Total attrition, academic attrition, and nonacademic attrition were all higher during FY 77 than FY 76. However, the total reported number and percentage of setbacks was significantly less in FY 77 than in FY 76. It is important to note that for the 1.5 percent increase in annual enrollment, total attrition rose 1.1 percent and total setbacks decreased by 4.5 percent.

A comparison of percent total attrition from Al and A3 courses for FY 76 and FY 77 is presented in figure 2. The histogram shows that attrition rates have shifted toward the right (in the direction of increased attrition). From the histogram in figure 2 it is obvious that attrition increased for nearly all percentage intervals. It should be noted that in FY 76, 30 courses had zero attrition while in FY 77 only 17 courses had zero attrition. Furthermore, while 27 courses had attrition greater than 10 percent in FY 76 this number increased to 47 in FY 77. Appendix A presents a complete list of "A" courses and attrition data for FY 77. Appendix C presents a comparison of attrition data for courses for which FY 76 and FY 77 data were available. Appendix D is similar to appendix C but is restricted to cost data.

Figure 3 presents the comparison of the distributions of academic attrition from Al and A3 courses while figure 4 presents the same comparison for nonacademic attrition. Courses having academic attrition equal to or greater than 10 percent are listed in table 1. Comparison of these data with those of FY 76 shows:

- . The number of courses increased from 10 (6.8 percent of all courses) in FY 76 to 26 (16.6 percent of all courses) in FY 77 (a 160 percent increase).
- . Six of the ten courses contained in the FY 76 list are also contained in the FY 77 list indicating a continued academic attrition problem for these courses.
- . Eight of the courses are at one location--Corry Station.

rationale utilized the most relevant information on which to fairly and equitably estimate costs that were not otherwise obtainable.

#### SUMMARY

Four analyses representing four different perspectives on essentially the same data base were performed. In each analysis, the FY 76 and FY 77 data are presented for comparison purposes. The cost data obtained from the RMS data base is to the lowest level reported and is the most accurate obtainable in the NAVEDTRACOM. However, the reader should be reminded that the data obtained from other sources on which this report is based are characterized by a number of vagaries, specifically:

- Although the data of the NITRAS system exhibits substantial reliability, it is still subject to error.
- . The classification of an attrite as either academic or nonacademic is made on judgment of circumstances on individual cases. It is difficult to classify borderline cases as academic and often academic attrites are classified as nonacademic attrites.
- CNET Instruction 1540.4 establishes the policy and guidelines on academic attrition. However, local commands have options at their disposal that can mask an attrition problem.

These variations cannot be accounted for in the aggregate data base of this report. The acquisition of an extensively validated data set would have required the expenditure of additional resources with questionable utility for the gains made by such an investment.

- 3. Weeks of Enrollment for the i<sup>th</sup> Course  $WE_{i} = \frac{NG_{i} (CL + 2)}{7} + WAA_{i} + NAA_{i}$
- 4. Total Cost of Attrition of the i<sup>th</sup> Course CA<sub>i</sub> = (EWC<sub>i</sub>) (WAA<sub>i</sub> + WNAA<sub>i</sub>)
- 5. Cost Academic Attrition of the i<sup>th</sup> Course  $CAA_{i} = \frac{(TCA) (NAA)}{NAA + NNAA}$
- 6. Cost Nonacademic Attrition of the i<sup>th</sup> Course  $CNAA_{i} = \frac{(TCA)(NNAA)}{NAA + NNAA}$
- 7. Academic Attrite Weeks of the i<sup>th</sup> Course  $WAA = \frac{(TWA) (NAA)}{NAA + NNAA}$
- 8. Nonacademic Attrite Weeks of the i<sup>th</sup> Course  $WNAA = \frac{(TWA) (NNAA)}{NAA + NNAA}$

Several variables of significant policy interest (i.e., Total Cost of Academic Attrition, Total Cost of Nonacademic Attrition, Total Weeks of Academic Attrition) were obtained by summing overall courses. These results are presented in appendix A.

The above calculations were made utilizing the data directly from the RMS data base; whereas, in the previous report an extract of similar variables (Per Capita Report No. 7) was used. At the time of the present analyses, Per Capita Report No. 7 was unavailable because its software was undergoing modification. However, the results obtained are not considered to be different than those that would have been obtained more directly from Per Capita Report No. 7, since the fundamental data source is the same.

In most cases course cost accounting procedures are such that costs for each course are reported under individual RMS cost codes. For some courses cost accounting procedures resulted in the joint allocation of cost because more than one course was combined under a single RMS cost code. Thus, individual course costs, for the combined course cost codes, must be estimated by proration. In these cases, costs were prorated among courses on the basis of student input; concomitantly attrition costs were prorated on the basis of the relative proportions of academic and nonacademic attrition for each course reported in the TSF. This

of this analysis was to determine the magnitude and impact of attrition in terms of what it costs the training community on a per capita and aggregate per course basis. It is an attempt to determine the impact of academic attrition in terms of lost training resources. This kind of analysis provides a basis for weighing the potential benefits of various CNET options or policies designed to influence attrition. Courses experiencing greater attrition cost may have greater potential for payoff, given that options are available for reducing attrition. Courses with high attrition cost and a relatively low number of attrites may be less likely to derive benefits from policies designed to influence attrition.

DATA SOURCE: RESOURCES MANAGEMENT SYSTEM (RMS) PER CAPITA DATA BASE FY 77

The RMS per capita data base is maintained annually and represents an aggregate of costs which includes cost elements such as student and instructor pay and allowances, equipment maintenance and depreciation, and other direct and indirect costs. The following variables were taken or calculated from the RMS data base:

> TCC Total Course Cost (student costs, instructor costs, overhead, depreciation)

TCA Total Cost Attrition TWA Total Weeks Attrition

NAA Number of Academic Attrition

NNAA Number of Nonacademic Attrition Cost per Enrollment Week of the ith Course

EWC; DC RMS Direct Cost

SC RMS Student Cost

Number of Graduates of the i<sup>th</sup> Course NGi

CL Course Length

Total Cost of the ith Course Ci

Total Cost of Attrition of the i<sup>th</sup> Course
Total Cost of Nonacademic Attrition for the i<sup>th</sup> Course CAi CAAi Total Cost of Nonacademic Attrition for the ith Course CNAA; =

CGi Course Cost per Graduate of the ith Course Weeks of Enrollment for the ith Course WEi

WAAi Weeks of Academic Attrition for the ith Course Weeks of Nonacademic Attrition for the ith Course.

The following equations shown below were used to perform the various calculations. Several intermediate calculations were required to obtain values for the final results. These equations are presented here for completeness; however, the results obtained from these intermediate calculations are not necessarily shown individually in appendix A.

Total Course Cost

TCC = DC + SC

Course Cost per Graduate of the ith Course

$$CG_{i} = C_{i}$$
 $NG_{i}$ 

TABLE 5. COURSES IN WHICH UNQUALIFIED STUDENTS (WAIVERS) ATTRITED AT SIGNIFICANTLY HIGHER RATES THAN QUALIFIED STUDENTS (continued)

CDP	SHORT TITLES	CIN	CHI-SQUARE
6515	AE-A1	C-602-2012	17.85
6518	AMS-A1	C-603-2010	4.72
6523*	PH-LEVEL 1	C-400-2010	4.57
6529	ISA	A-242-0010	9.62
6537*	AW-A1	C-210-2010	24.19

Significant chi-square = 3.841

CDP - Course Data Processing Code

CIN - Course Identifying Number

TABLE 6. RMS COURSE COSTS FY 76 VS. FY 77\*

	FY 76	FY 77
Total Course Cost	254,308,000	231,888,000
Total Attrition Cost	15,200,000	13,164,000
Total Academic Attrition Cost	8,800,000	7,130,000
Total Nonacademic Attrition Cost	6,400,000	6,018,000
Total Attrition Cost/Total Course Co	st 5.97%	5.67%
Total Number of Courses	118	124

<sup>\*</sup>The total course cost in FY 77 is significantly lower than FY 76 because the costs for a number of high cost courses were not available in the data base (i.e., nuclear power courses), and in some cases courses were phased out or combined. Inclusion of the cost data for these courses could have a profound effect on the figures listed above.

<sup>\*</sup>Course had significant chi-square in FY 76

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TABLE 7. DISTRIBUTION OF ANNUAL COST OF COURSES (FY 76 VS. FY 77)

Cost in Thousands	Number of Courses		Cumulative Number of Courses		Cumulative Percent of Courses	
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77
Under 1,000	57	56	57	56	48	45
1,000-1,999	17	26	74	82	63	66
2,000-2,999	13	20	87	102	74	82
3,000-3,999	7	4	94	106	80	85
4,000-4,999	10	8	104	114	88	92
5,000-5,999	4	5	108	119	92	96
Over 6,000	10	5	118	124	100	100

TABLE 8. DISTRIBUTION OF ANNUAL COST OF TOTAL ATTRITION (FY 76 VS. FY 77)

Cost in Thousands	Number of Courses		Cumulative Number of Courses		Cumulative Percent of Courses	
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77
0 - 50	72	70	72	70	61	56
51 - 100	8	18	80	88	68	71
101 - 150	13	11	93	99	79	80
151 - 200	4	8	97	107	82	86
201 - 250	2	3	99	110	84	89
251 - 300	7	1	106	111	90	90
301 - 350	0	1	106	112	90	90
351 <i>-</i> 400	0	4	106	116	90	94
Over 400	12	8	118	124	100	100

- Courses with an annual cost of over \$6 million decreased by 50 per cent (10 to 5) in FY 77.
- . The biggest increases in numbers of courses occurred in the 1,000 1,999 and 2,000 2,999 categories (49 percent).

Table 8 displays the distribution of the annual cost of total attrition. Noteworthy items include:

- . The largest increase was in the 51 100 thousand cost level (56 percent).
- . The largest decrease was in the 251 300 thousand cost level.

Although the total courses in the over 400 thousand cost level decreased by four, the number of courses in the 300 thousand to 400 thousand cost category increased from 0 to 5.

While the obtained distributions of FY 77 data on total course costs and course attrition costs are useful in presenting an overall picture, tables 9 and 10 show the costs for academic and nonacademic attrition. Again, for tables 9 and 10 as well as the remaining tables, data are limited to 118 "A" courses for FY 76 and 124 "A" courses for FY 77. Distributions of the annual cost of academic attrition (table 9) and nonacademic attrition (table 10) are very similar. Both are highly skewed in a positive direction toward high cost; i.e., each distribution shows approximately 80 percent of the courses with attrition (academic and nonacademic) cost less than \$100,000. It is important to note that the distributions for FY 76 and FY 77 are almost the same. In the aggregate, academic attrition in FY 77 cost the Navy training community approximately \$7,130,000 for 3,595 attrites while the nonacademic attrition cost was \$6,018,000 for 3,843 attrites. These totals show that although attrition is almost evenly divided between academic and nonacademic (in absolute numbers of attrites), their respective cost is not equal. As percentages of total attrition cost, 54 percent is attributable to academic and 46 percent to nonacademic.

From table 9 it is clear that relatively few courses have large academic attrition costs. The problem is to determine a threshold for concern. In other words, there is no precise way to determine the cost point at which specific courses warrant a more detailed examination. As in the previous report (TAEG Report 47), examining the point at which cumulative academic attrition costs accelerate dramatically (table 9), a threshold of \$150,000 was taken. Given that value as a threshold of concern, 110 courses (88 percent of the "A" courses) have a total academic attrition cost of \$2,741,000, or 38 percent of the total academic attrition cost. Figure 5 pictorially displays these results for FY 77 and FY 76 data. It is noteworthy that in both years approximately the same number of courses (14 and 15) account for a majority of the total academic attrition cost.

Table 11 delineates by CDP and short title the 14 courses which have an annual academic attrition cost greater than \$150,000. This table also presents cost per graduate, percentage academic attrition, throughput, chi-square values of qualified/nonqualified trainees experiencing academic attrition, and mean values of each variable for all the courses. The threshold of \$150,000 was selected utilizing the information of table 9. Three parameters were selected for presentation in

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TABLE 9. ANNUAL COST OF ACADEMIC ATTRITION (FY 76 VS. FY 77)

Cost in Thousands	Number of Courses		Cumulative Number of Courses		Cumulative Percent of Courses	
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77
0 - 50	85	95	85	95	72	77
51 - 100	10	9	95	104	81	84
101 - 150	8	6	103	110	87	88
151 - 200	3	4	106	114	90	92
201 - 250	2	1	108	115	92	93
251 - 300	1	4	109	119	92	96
301 - 350	2	1	111	120	94	97
351 - 400	3	0	114	120	97	97
0ver 400	4	4	118	124	100	100

TABLE 10. ANNUAL COST OF NONACADEMIC ATTRITION (FY 76 VS. FY 77)

Cost in Thousands	Number of Courses		Cumulative Number of Courses		Cumulative Percent of Courses	
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77
0 - 50	82	88	82	88	68	71
51 - 100	16	22	98	110	83	89
101 - 150	7	4	105	114	89	92
151 - 200	4	4	109	118	92	95
201 - 250	4	1	113	119	96	96
251 - 300	1	2	114	121	97	98
301 - 350	2	1	116	122	98	98
351 - 400	1	1	117	123	99	99
Over 400	1	1	118	124	100	100

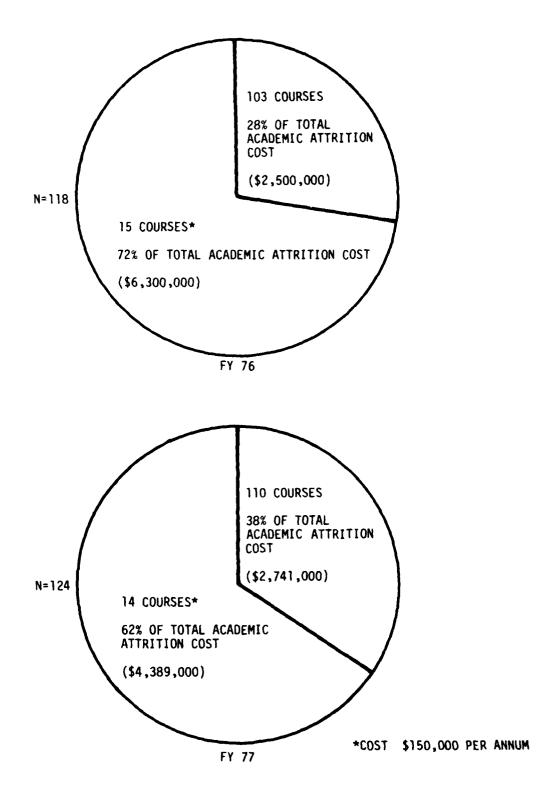


Figure 5. Academic Attrition Costs Proportions Attributable To Courses Above or Below \$150,000 Threshold for Concern (FY 76 vs FY 77).

table 11 because high academic attrition cost may be attributed to one or more of these factors. For example, OT-A (CDP 6341) was high, relative to the mean, for cost per graduate and academic attrition percentage, but had low throughput. Conversely, MS-A (CDP 6125) has a high throughput, a low academic attrition percentage and a relatively low cost per graduate.

In any attempt made to lower the cost of academic attrition it is recommended that the 14 courses identified in table 11 be subjected to the initial analysis, with initial effort being devoted to those courses identified in both years (i.e., Music Basic, RM-A, etc). Analysis of the mean values for all courses of table 11 reveals an academic attrition percentage greater than the mean value of the 124 courses in the overall analyses. However, several of the courses have cost per graduate or throughput less than the mean values of the 124 courses. Therefore, even though all three parameters (cost per graduate, academic attrition rate, and throughput) influence the cost of academic attrition, the academic attrition percentage is still considered to be the most important variable to study.

TABLE 11. COURSES WITH ACADEMIC ATTRITION COST GREATER THAN \$150,000

CDP	Short Title	Cost per Graduate	Academic Attrition Percent	Throughput	Chi- square*
		7 700			***
6065**	Music Basic	7,738	8	598	
6125	MS-A	2,299	6	1,932	19.75
6142	OS-A	4,664	8	1,681	88.40
6144**	RM-A	2,900	7	3,342	51.27
6239**	AVA-AT-A1	5,753	9	1,435	3.72
6244	AFTA-AT-Al	10,818	5	513	6.72
6263**	ET-A1-ETN	3,045		1,400	2.33
6265**	ET-A1-ETC	3,119	6 5	1,386	24.48
6278**	AC-A1	7,125	17	527	14.20
6301**	CTR-A	10,307	16	468	9.40
6302**	CTT-A-PREP	6,541	14	656	6.06
6341	OT-A	23,304	12	78	0.10
6451	EW-CM-TECH	10,708	19	94	***
6476	EW FUND/PM TECH	46,954	9	36	***
Mean fo	r 14 Courses	10,377	10.1	1,010	
Mean Va	lue for 124 Cours	es 4.413	4.5	595	

<sup>\*</sup> Significant chi-square = 3.841

CDP - Course Data Processing Code

<sup>\*\*</sup> Courses had academic attrition cost greater than \$150,000 in FY 76

<sup>\*\*\*</sup> Waiver data unavailable

The last column of this table lists the chi-square values relating qualification and attrition for each course. The relationship between waivers and academic attrition is positive and significant for eight of the fourteen courses. It is also important to note that eight of the courses were repeats from the FY 76 analysis.

In general, the higher the cost of the course due to large throughput and cost per graduate, the higher the cost of attrition. This result is the same as it was in the FY 76 study. Consequently, to negate this scale factor, the attrition cost as a percentage of course cost was analyzed. Tables 12 through 14 show the frequency distributions of total attrition cost, academic attrition cost, and nonacademic attrition cost, respectively, as percentages of course cost for the 124 courses. Again, each distribution is positively skewed from the 1 percent level to the higher levels of percentage of total course cost. It should be noted that although the number of courses under 1 percent decreased significantly (from 41 to 19), the number of courses from 1 to 10 percent increased in all cases except one. It is of interest to note from table 12 that 15 courses have attrition cost equal to or greater than 10 percent of course cost. In tables 13 and 14 only nine and three courses, respectively, exceed 10 percent of the course cost. This apparent discrepancy can be explained by the combinatorial aspects of the data.

In the overall comparison of FY 76 costs vs. FY 77 costs depicted in table 12 the following are considered most significant:

- The number of courses in the under 1 percent category decreased from 35 percent in FY 76 to 15 percent in FY 77.
- Although the number of courses with attrition costs equal to or greater than 10 percent of course cost remained relatively constant from FY 76 to FY 77 (14 vs. 15), the number of courses in the 15 percent and above category increased from three in FY 76 to 11 in FY 77.

Note that the observations for total attrition presented above, apply similarly to the academic and nonacademic attrition. Both forms of attrition show that there is a marked decrease in the number of courses in the under 1 percent level and an increase in the number of courses in the 10 percent and above levels. The critical result is that in FY 76 over half the courses had an attrition cost to course cost ratio of less than 1 percent in both cases; whereas in FY 77 less than 50 percent of the courses were at this level (i.e., 44 percent for academic attrition and 30 percent for nonacademic attrition).

Figures 6 and 7 were constructed from the data in tables 13 and 14 with the curves from FY 76 data represented by the broken lines. From these curves the positive skewness of the data is quite apparent. Cost data for all courses for which RMS data were available in both FY 76 and FY 77 are contained in appendix D. Included in appendix D for reference purposes are the following course cost data: total cost, total attrition cost, academic attrition cost, nonacademic attrition cost, and cost per graduate.

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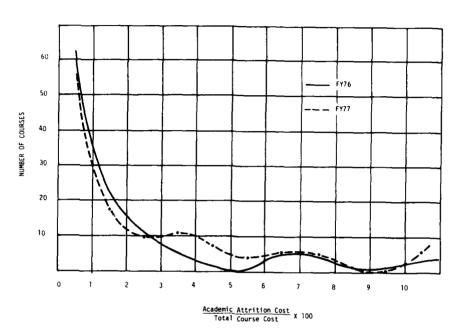


Figure 6. Academic Attrition Cost as a Percentage of Total Course Cost (FY 76 vs. FY 77)

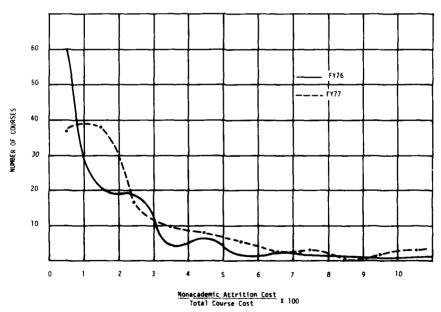


Figure 7. Nonacademic Attrition Cost as a Percentage of Total Course Cost (FY 76 vs. FY 77)

TABLE 12. DISTRIBUTION OF THE ATTRITION COST AS A PERCENTAGE OF COURSE COST (FY 76 VS. FY 77)

Percent Attrition Cost Course Cost		ber of ourses	Numb	lative er of erses	Cumulative Percent of Courses		
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77	
Under 1 1.0 to 1.9 2.0 to 2.9 3.0 to 3.9 4.0 to 4.9	41 14 16 14 6	19 22 16 18 3	41 55 71 85 91	19 41 57 75 78	35 47 60 72 77	15 33 46 60 63	
5.0 to 5.9 6.0 to 6.9 7.0 to 7.9 8.0 to 8.9 9.0 to 9.9	7 1 0 1 4	9 5 4 6 7	98 99 99 100 104	87 92 96 102 109	83 84 84 85 88	70 74 77 82 88	
10.0 to 10.9 11.0 to 11.9 12.0 to 12.9 13.0 to 13.9 14.0 to 14.9	2 2 5 0 2	1 1 2 0	106 108 113 113 115	110 111 113 113 113	90 92 96 96 97	89 90 91 91 91	
15 & Above	3	11	118	124	100	100	

TABLE 13. DISTRIBUTION OF THE ACADEMIC ATTRITION COST AS A PERCENTAGE OF COURSE COST (FY 76 VS. FY 7/)

Percent Academic Attrition Course Cost		ber of rses		lative er of ses	Cumulative Percent of Courses		
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77	
Under 1 1.0 to 1.9 2.0 to 2.9 3.0 to 3.9 4.0 to 4.9	62 21 12 4 1	55 17 9 12 7	62 83 95 99 100	55 72 81 93 100	53 70 81 84 85	44 58 65 75 81	
5.0 to 5.9 6.0 to 6.9 7.0 to 7.9 8.0 to 8.9 9.0 to 9.9	0 6 4 1 2	3 6 5 1 0	100 106 110 111 113	103 109 114 115 115	85 90 93 94 96	83 88 92 93 93	
10 & Above	5	9	118	124	100	100	

TABLE 14. DISTRIBUTION OF THE NONACADEMIC ATTRITION COST AS A PERCENTAGE OF COURSE COST (FY 76 VS. FY 77)

Percent Nonacademic Attrition Course Cost	Numb Cour	er of		lative er of ses		ative nt of es	
	FY 76	FY 77	FY 76	FY 77	FY 76	FY 77	
Under 1	60	37	60	37	51	30	
1.0 to 1.9	21	38	81	75	69	60	
2.0 to 2.9	19	18	100	93	85	75	
3.0 to 3.9	4 7	10	104	103	88	83	
4.0 to 4.9	7	8	111	111	94	90	
5.0 to 5.9	1	5	112	116	95	94	
6.0 to 6.9	2	1	114	117	97	94	
7.0 to 7.9	1	3	115	120	97	97	
8.0 to 8.9	1	0	116	120	98	97	
9.0 to 9.9	1			121	99	98	
10 & Above	1	3	118	124	100	100	

For the majority of the courses analyzed, the cost of academic attrition is a very small percentage of the overall cost of a course. The obvious implication for where to focus any effort to reduce academic attrition should be only in those few extremely high attrition cost courses. In the few courses with relatively high attrition costs, both the opportunity to improve and the payoff are greatest. The cost of exploring attrition reducing policies and practices elsewhere would not be likely to equal or exceed the benefit.

#### SECTION IV

#### SUMMARY OF FINDINGS AND RECOMMENDATIONS FOR FUTURE CONSIDERATIONS

This section presents the significant findings of this study with comments as appropriate. The findings are organized by attrition levels, attrition cost, and causes of attrition. A series of recommendations is also presented. The order in which the findings are presented does not represent a priority in which they should be addressed for correction of the problem, order of difficulty, or cost to be saved or expended. For each item the specific page(s) of the present report is cited for the reader who wishes more detail.

# Extent and Patterns of Attrition in Al and A3 Courses

- . Total attrition in 156 Al and A3 courses was 8.5 percent (7,477) of total enrollment (87,938) during FY 77 (page 14).
- . Compared with attrition from the Navy prior to the end of obligated service (42 percent) academic and nonacademic attrition represents a far smaller percentage. In fact, the bulk of attrition from Al and A3 courses represents virtually no direct attrition from the Navy.
- . Academic attrition and nonacademic attrition in the aggregate represents about the same amount of attrites, 4.1 percent academic and 4.4 percent nonacademic (page 14).
- Individual courses vary widely in the percentage of academic and nonacademic attrites. Specific inferences cannot be made for individual courses (page 14).
- Sixteen percent (10,917 ± 66,653) of the inputs to the 156 Al and A3 courses are waived; i.e., do not meet minimum ASVAB course entrance requirements. These percentages include waived personnel under special categories such as racial minority and reading difficulty (page 22). "The statistics on page 22 of the report indicate that the Navy is doing a good job in their recruitment of 'unqualified trainees.' Of this group of 10,917, only 827 (8.2%) academically attrited from 'A' school. To eliminate these attrites would have reduced school output by over 10,000 in 1977. Since it is very likely that the recruiters were unable to recruit enough 'qualified trainees' (with a 3.5% academic attrition rate), the enrollment of this unqualified group seems to have been extremely cost effective. In addition, as pointed out...in the report, the bulk of attrites from Al and A3 courses do not attrite from the Navy."4

Verbal communication from Captain W. A. Lamm, Special Assistant for Attrition, Deputy Chief of Naval Personnel, Bureau of Naval Personnel, March 1978.

Personal communication from Dr. I. Shever, CNET Code 005. However, the authors maintain that special attention to the training problems of waived trainees is warranted.

## Overall and Course Specific Costs of Academic Attrition

- Total cost for 124 courses analyzed in this study for FY 77 was \$231,888,000. Attrition constitutes \$13,164,000 of this total (page 21).
- Academic attrition cost for the 124 courses analyzed is \$7,130,000 per year whereas nonacademic attrition is \$6,018,000 (page 26).
- . In the aggregate, academic attrition costs are greater than non-academic costs because a relatively few high cost courses have far greater academic than nonacademic attrites (page 26).
- Fourteen courses account for 62 percent of all academic attrition cost (page 26).
- Fourteen courses have academic attrition costing more than \$150,000 per year (page 29).
- . Nine courses have academic attrition costs greater than 10 percent of their respective course cost (page 30).

## Factors Associated with Academic Attrition

- . Variables such as course length, throughput, and number of convenings are positively related to academic attrition (page 22).
- . Forty courses show a significant course waiver effect (page 23, 24).
- . Eight of the 15 most costly courses also show a significant course waiver effect (page 29).
- . Setbacks; i.e., trainees who repeat some portion of a course, represent a potentially greater area of uncertainty than course attrition. Setbacks represent 11.5 percent of enrollment. Their cost and attrition implications are for the most part unknown (page 14).

## ATTRITION IN FY 76 VS. FY 77

The following comparisons of FY 76 to FY 77 data must be interpreted with extreme caution because of the limitation of two data points—the differing of courses between years and tenuous nature of the data in both years.

- Total attrition in FY 77 was greater than that in FY 76.
- . Total attrition cost in FY 77 was less than that of FY 76.
- Enrollment was higher during FY 77 than in FY 76.

#### RECOMMENDATIONS

The recommendations and conclusions of this study are outlined below. They are identical to those offered in the previous study (TAEG Report 47).

- . Careful in-depth monitoring and scrutiny should be continued by CNTECHTRA of all courses, and TAEG's assistance should be requested on specific attrition problems.
- . Special attention should be given to schools that have high waivers and high percentage of waiver failures.
- . Investigate "C" courses to ascertain if "C" school attrites should have been attrited from "A" school.
- Investigate entire pipeline of a rating to ascertain where and when personnel attrite. A hypothesis is that personnel who attrite from "C" schools did poorly in "A" schools. It is costly to train personnel in a series of courses (i.e., Basic Electricity and Electronics supplies inputs to Electronic Technician "A" school which supplies inputs to "C" school) and have them attrite after completion of "A" school.
- . Investigate courses that have high attrition for a possible two-track system. One track would continue to turn out graduates based on current time and material whereas the other track would increase the course length.
- Perform detailed analyses on waivers to ascertain if waiver score point spread should be tightened.
- . Investigate further the relationship between setbacks and attrition. Revise/establish setback policy.
- . Investigate when and where setback and/or failure occur during selected courses (i.e., time, subject matter, etc.).
- . Perform analysis on setbacks from the following perspectives:
  - (1) Academic setbacks
  - (2) Nonacademic setbacks
  - (3) Setback policy from individual course, school, and CNET in the aggregate
  - (4) Cost of setbacks.

FIED	ACA ATT	ADEMIC RITION	QUA ATT	LIFIED RITES			UNQUAL I ATTRITE	FIED S	
OF TOTAL IMPUT	NUMBER	© OF TOTAL INPUT	NUMBER	OF QUAL INPUT	OF ACADEMIC ATTRITES	NUMBER	OF UNQUAL INPUT	° OF ACADEMIC ATTRITES	CHI~ SQUARE
5	6	7	8	9	10	11	12	13	14
<u>+</u> ]		6÷1		8÷1	8÷6		11÷1	11÷6	
13.3 15.6 19.2 12.9 24.9	2 0 19 2 43	1.9 0 11.4 1.2 4.9	1 0 16 1 26	1.1 0 11.9 0.7 3.9	50.0 0 84.2 50.0 60.5	1 0 3 1 17	7.1 0 9.4 4.5 7.7	50.0 0 15.8 50.0 39.5	0.24 - 0.50 0.26 4.35*
8.6 35.4 7.2 16.7	0 0 2 5	0 0 2.9 0.5	0 0 2 4	0 0 3.1 0.4	0 0 100.0 80.0	0 0 0 0	0 0 0 0 0.6	0 0 0 0 20.0	- - - 0.97 0.12
20.8	8	0.7	3 -	0.4	37.5	5	2.2	62.5 -	6.17*
8.0 21.8 38.3	0 133 9	0 6.5 15.0	0 83 3	0 5.1 8.1	0 62.4 33.3	0 50 6	0 11.1 26.1	0 37.6 66.7	19.75*
10.1 5.5 7.4 18.7 18.6	39 1 10 0 146	13.1 0.1 1.1 0 8.4	31 1 9 0 76	11.6 0.14 1.1 0 5.4	79.5 100.0 90.0 0 52.1	8 0 1 0 70	26.7 0 1.5 0 21.7	20.5 0 10.0 0 47.9	4.12* 3.58 8.74* - 88.40*
10.3 11.9 12.6 7.2 18.8	254 82 0 3 11	7.7 12.2 0 1.7 2.9	194 70 0 3 8	6.5 11.8 0 1.8 2.6	76.4 85.4 0 100.0 72.7	60 12 0 0 3	17.6 15.0 0 0 4.3	23.6 14.6 0 0 27.3	51.27* 0.41 - 0.41 0.12
9.2 12.9 21.0 16.8	28 36 0 1	6.6 35.6 0 1.1	22 32 0 1	5.7 36.4 0 1.3	78.6 88.9 0 100.0	6 4 0 0	15.4 30.8 0 0	21.4 11.1 0 0	3.94* 0.49  0.79
16.7 9.8 10.3 8.3 37.5	0 1 1 0 0	0 0.2 0.3 0	0 0 0 0	0 0 0 0	0 0 0 0	0 1 1 0 0	0 1.7 2.5 0 0	0 100.0 100.0 0	1.84 1.72 -
9.9 26.3 30.6 10.0 14.4	0 104 6 148 36	0 16.4 1.3 9.8 10.2	0 62 3 126 26	0 13.2 0.9 9.3 8.6	0 59.6 50.0 85.1 72.2	0 42 3 22 10	0 25.1 2.1 14.6 19.6	0 40.4 50.0 14.9 27.8	11.96* 0.35 3.72 4.67*
								F1 /F-	1

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		<del> </del>		ALIFIED INPUT		ALIFIED NPUT	ACADE: ATTRI	
CDP	SHORT TITLE	CIN	TOTAL	NUMBER	© OF TOTAL INPUT	NUMBER	S OF TOTAL INPUT	NUMBER
			11	2	3	4	5	6
					2+1		4+1	
6082 6083 6093 6097 6102	SW-A UT-A TM SUB/TORP TECH EO-A PN-A	A711 0015 A720 0012 A123 0127 A730 0010 A500 0014	105 64 167 170 886	91 54 135 148 665	86.7 84.4 80.8 87.1 75.1	14 10 32 22 221	13.3 15.6 19.2 12.9 24.9	2 0 19 2 43
6103 6108 6115 6118 6119	OT-A FT-A2 GM-A SQQ23 PAIR OP-BAS HT-A1	A210 0011 A113 0019 A041 0010 A130 0097 A780 0035	455 387 69 1106	416 250 64 932	91.4 64.6 92.8 84.3	39 137 5 174	8.6 35.4 7.2 16.7	0 0 2 5
6120 6122 6123 6125 6126	HT-A1 CTI-A2-HEBREW CTI-A2-ARABIC MS-A QRTR-MSTR BASE	A780 0035 A232 0041 A232 0042 A800 0013 A772 0010	1079 - 25 2062 60	855 - 23 1612 37	79.2 - 92.0 78.2 61.7	224 - 2 450 23	20.8 - 8.0 21.8 38.3	8 - 0 133 9
6137	DS-A ET-A-3R ET-A-3N CTI-A2-FRENCH OSA	A150 0025 A104 0010 A102 0010 A232 0040 A221 0011	297 775 914 16 1735	267 732 846 13 1412	89.9 94.5 92.6 81.3 81.4	30 43 68 3 323	10.1 5.5 7.4 18.7 18.6	39 1 10 0 146
6144 6146 6149 6161 6167	RMA PLRS-POS-ELECT-A CM-A CTM-A DP-A	A202 0014 A121 0142 A610 0022 A102 0109 A531 0016	3310 674 119 180 373	2969 594 104 167 303	89.7 88.1 87.4 92.8 81.2	341 80 15 13 70	10.3 11.9 12.6 7.2 18.8	254 82 0 3
6178 6182	STS-CLASS A EW-OP-MAINT/TECH ASH-A1 ASM-A1 INTRO WELD	A130 0029 A102 0154 C602 2023 C602 2024 A700 0011	425 101 124 95 -	386 88 98 79 -	90.8 87.1 79.0 83.2	39 13 26 16	9.2 12.9 21.0 16.8	28 36 0 1
6193 6194 6195 6196 6197	MK-114-OP-BAS SQS-DG-OP-BAS SQS-35V-38-OPBAS	A130 0088 A130 0083 A130 0084 A130 0085 A130 0092	12 604 390 36 8	10 545 350 33 5	83.3 90.2 89.7 91.7 62.5	2 59 40 3 3	16.7 9.8 10.3 8.3 37.5	0 1 1 0
6209 6239	SQS-26-CX/AXR SH-A SH-A AVA-AT-A1 AVA-AQ-A1	A130 0086 A823 0012 A823 0012 C100 2013 C100 2013	444 636 474 1509 354	400 469 329 1358 303	90.1 73.7 69.4 90.0 85.6	44 16 <i>7</i> 145 151 51	9.9 26.3 30.6 10.0 14.4	0 104 6 148 36

# QUALIFIED AND UNQUALIFIED ATTRITION

NQUA IN	LIFIED PUT	ATTRITION ATTRITES							UNQUALI ATTRITE	FIED S	
Marian	% OF TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER	% OF QUAL INPUT	% OF ACADEMIC ATTRITES		NUMBER	% OF UNQUAL INPUT	% OF ACADEMIC ATTRITES	CHISQUARE
1	5	6	7	8	9	10		11	12	13	14
	4÷1		6÷1		8 <b>÷</b> 1	8 <b>÷6</b>			11+1	11÷6	
- - - 12	- - - 8.7	- - 0	- - 0	- - 0	0	- - 0		- - 0	- - 0	- - 0	- - -
- 2 3 -	- 6.5 5.5 -	2 3	- 6.5 5.5	1 3 -	3.4 5.8	- 50 100		 1 0	50 0 -	- 50 0 -	1.23 0.77
6	12.2	0	0	0	0	0		0	0	0	-
85 81	18.6 25.2	72 39	15.8 12.1	39 22	10.5 9.1	54.2 56.4		33 17	38.2 20.9	45.8 43.6	39.59* 6.93*
72 76 96 48 94	17.1 24.1 9.4 25.8 10.9	17 43 36 19 72	4.0 13.7 3.5 10.2 8.3	10 27 25 7 57	2.9 11.3 2.7 5.1 7.4	58.8 62.8 69.4 36.8 79.2		7 16 11 12 15	9.7 21.1 11.5 25.0 16.0	41.2 37.2 30.6 63.2 20.8	5.55* 3.86* 16.99* 13.32* 6.91*
23 24 23 11 6	16.3 12.6 22.8 15.5 11.3	8 18 5 3 6	5.7 9.5 5.0 4.2 11.3	7 17 2 2 4	5.9 10.2 2.6 3.3 8.5	87.5 94.4 40.0 66.7 66.7		1 1 3 1 2	4.3 4.2 13.0 9.1 33.3	12.5 5.6 60 33.3 33.3	0.63 1.75 2.22 3.29 1.26
30 78 79 45 11	10.9 33 21.8 19.7 24.4	24 90 33 9 0	8.7 7.9 2.3 3.9	16 52 14 6 0	6.5 6.8 1.4 3.3 0	66.7 57.8 42.4 66.7 0		8 38 19 3	26.7 10.1 6.8 6.7	33.3 42.2 57.6 33.3	11.27* 3.31 23.29* 0.39
- 97 19 - 16	19.5 13.0 - 12.3	41 3 -	8.2 0.2 - 0.4	23 2 - 3	5.6 0.1 - 0.4	56.1 66.7 - 75.0		18 1	18.6 0.5 - 0.9	43.9 33.3 - 25.0	15.27* 3.68 - 2.11
10 13 1 7	16.9 23.2 16.7 10.8 10.8	9 3 0 0	15.3 5.4 0 0	8 1 0 0	16.3 2.3 0 0	88.9 33.3 0 0		1 2 0 0	10.0 15.4 0 0	11.1 66.7 0 0	0.98 1.28 - - -

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TABLE B-1. QUALIFIED AND UNQUALIFIED

			1	QUAL I		AUQNU N I	LIFIED PUT	ACAD ATTR
CDP	SHORT TITLE	CIN	TOTAL	NUMBER	% OF TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER
			1	2	3	4	5	6
					2±1		4+1	
130E 340S 348X 541U 1300	NUC PWR AVR-A1 SQQ-23-PAIR OPBAS SQS 53 OPBAS NUC PWR	A661 0010 C100 2014 A130 0097 A130 0103 A661 0010	- - 138	- - 126 -	91.3	- - 12	8.7	0
1301 2053 3197 3522 3806	NUC PWR CTT-FLR 11/15 OPS CTT ELINT OP AVCC-A1 ET SEIR	A661 0010 A231 0024 A231 0028 C780 2010 A104 0012	- 31 55 -	- 29 52 - -	93.5 94.5 - -	2 3 -	6.5 5.5 -	2 3 -
4084 5261 5309 6001 6002	CTT CLSC WIZ OP SCAT-MOD-2 SCAT-MOD-1 QM-A QM-A	A231 0038 A100 0036 A100 0035 A061 0012 A061 0012	49 - - 456 322	43 - - 371 241	87.8 - 81.4 74.8	6 - - 85 81	12.2 - 18.6 25.2	0 - 72 39
6005 6006 6015 6025 6027	SM-A SM-A SURF-ST-CLASS A GMT-A FTA-A	A061 0011 A061 0011 A130 0037 A644 0014 A113 0010	420 315 1017 186 863	348 239 921 138 769	82.9 75.9 90.6 74.2 89.1	72 76 96 48 94	17.1 24.1 9.4 25.8 10.9	17 43 36 19 72
6034 6036 6041 6046 6047	TM-SS-TORP-OP TM-OP-A/S-TORP MN-A IM-A QM-A	A123 0127 A123 0127 A647 0016 A670 0010 A670 0018	141 190 101 71 53	118 166 78 60 47	83.7 87.4 77.2 84.5 88.7	23 24 23 11 6	16.3 12.6 22.8 15.5 11.3	8 18 5 3 6
6053 6057 6059 6061 6063	CTO-A YN-A SK-CLASS A DK-A INFO SPEC JO A1	A580 0016 A510 0012 A551 0014 A542 0011 A570 0011	276 1145 1279 229 45	246 767 1000 184 34	89.1 67.0 78.2 80.3 75.6	30 378 279 45 11	10.9 33 21.8 19.7 24.4	24 90 33 9 0
6065 6068 6070 6071 6073	MUSIC BASIC MR/A EM/A EM/A IC-A	A450 0010 A702 0019 A662 0016 A662 0016 A623 0012	497 1691 - 946	400 1472 - 830	80.5 87.0 - 87.7	97 219 - 116	19.5 13.0 -	41 3 -
6076 6077 6078 6079 6081	PM-A ML-A EA-A CE-A BU-A	A790 0012 A790 0010 A412 0010 A721 0018 A710 0010	59 56 6 65 158	49 43 5 58 141	83.1 76.8 83.3 89.2 89.2	10 13 1 7 17	16.9 23.2 16.7 10.8 10.8	9 3 0 0

<sup>\*</sup>Significant Chi-square = 3.841

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# APPENDIX B

QUALIFIED AND UNQUALIFIED TRAINEE ATTRITION

ION DATA FOR CLASS AT AND AC COURSES (continued)

GRADUATES	ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION ( )	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (%)	TOTAL ATTRITION (#)	TOTAL ATTRITION (%)	STANDARD ATTRITION (%)	SETBACKS (#)	SETBACKS (%)	RMS COST CODE	TOTAL COURSE COST (000's)	COST PER GRADUATE	ACADEMIC ATTRITION COST (000's)	NONACADEMIC ATTRITION COST (000's)	TOTAL ATTRITION COST (000's)	MARGINAL COST** (000's)
39 49 365 720 89	2 0 4 70 0	5 - 1 9	1 1 11 46 15	3 2 3 6 3	3 1 14 121 15	8 2 4 15 3	20 20 4 9 10	0 0 37 203 15	- 10 24 3	5FCC 5FCC 5CBA 5CBA 5BBA	84 116 1294 2763 311	2145 2363 3545 3837 3495	15.5 0.0 3.8 101.8 0.0	7.7 6.7 10.5 66.9 50.7	23.2 6.7 14.3 168.7 50.7	7.9 2.3 8.1 96.1 27.9
1739 1754 969 111 343	0 0 0 1 0	- - - -	17 0 31 0 3	1 - 3 - 1	17 0 31 1 3	1 - 3 1	2 2 10 0	0 0 31 1 0	- 3 1 0	5DBS 5DBT 5BBA 5SCC 5SCB	2490 2149 3508 227 605	1431 1225 3619 2048 1763	0.0 0.0 0.0 4.0 0.0	15.7 0.0 121.2 0.0 1.3	15.7 0.0 121.2 4.0 1.3	7.7 5.6 66.6 1.3 0
25 23 21 94 28	7 0 0 26 8	13 - 19 23	22 3 0 6 0	37 12 - 5	29 3 0 32 8	46 12 - 23 23	0 0 0 10 10	10 0 0 28 12	19 - - 20 32	- - 5VB1 5BV1	1007	10708	317.7	73.3	391.0	132.9
7 34 36 - 2534	3 2 15 0 136	13 3 9 - 5	0 2 10 1 54	3 6 13 2	3 4 25 1 193	10 5 15 13 7	10 5 10 0 8	15 6 82 0 0	50 7 42 -	9PBB 5VBB 5ACC	1690 4492	46954 1772	256.4 127.7	171.0	427.4 178.5	128.2 67.8
1504 384 325 1573 589	32 4 22 34 13	2 1 6 2 2	64 8 4 52 19	4 2 1 3 3	97 16 26 87 26	6 4 7 5 4	10 5 8 7 7	488 21 38 379 109	27 5 10 20 16	5AIB 5PDD 5PDB 5BFB 5AEB	4206 802 1100 5424 2230	2796 2098 3385 3448 3785	42.9 3.4 34.9 54.0 23.4	85.9 6.9 6.3 82.6 34.2	128.8 10.3 41.2 136.6 57.7	65.7 3.8 14.8 66.9 17.3
1397 1963 566 326 433	15 21 6 12 0	1 1 1 4	44 84 30 15 4	3 4 5 5 1	60 106 36 27 4	4 5 6 9 1	7 10 5 5 5	220 409 231 82 0	14 18 33 25	5AED 5AEC 5PCB 5PBB 5BEB	2865 5226 2489 2079 1096	2050 2662 4397 6379 2531	21.6 37.4 12.7 31.4 0.0	63.3 149.7 63.5 39.4 12.8	84.9 187.1 76.3 70.8 12.8	36.5 91.7 28.2 31.8 5.1
449 290 406 544 233	0 30 0 17 28	8 3 10	14 4 4 11	3 1 1 2 4	14 34 4 28 40	3 9 1 5	5 8 5 8 10	0 22 26 28 22	6 6 5 8	5SBB 5HBB 5PDC 5SCB 5MBB	792 1059 607	1951 1946 2605	0.0 14.2 10.9	6.3 9.2 4.3	6.3 23.4 15.2	2.1 10.1 11.3
192 73 505	0 12 57	14 10	4 0 28	2 - 5	4 12 88	2 14 15	5 5 15	8 6 1 <b>9</b> 9	4 7 31	5ADB 5ABB 5BCB	588 241 1954	3064 3305 3869	0.0 18.3 99.7	6.4 0.0 49.0	6.4 18.3 148.6	2.7 5.3 62.4

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TABLE A-1. ATTRITION DATA FOR CLASS AT AND AR COURSES (cont

															٠,
				COURSE LENGTH (Days)	NUMBER OF CONVENINGS	TYPE COURSE*	MINIMUM ASVAB	INPUT	GRADUATES	ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION (%)	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (∀)	TOTAL ATTRITION (#)	
CDP	SHORT TITLE	CIN	LOCATION												
6346 6347 6376 6377 6378	SCAT-MOD-4 SCAT-MOD-3 FTG-A2 FTG-A1 GMT ASROC A	A100 0051 A100 0050 A113 0019 A113 0010 A041 0010	NEW LONDON NEW LONDON G. LAKES G. LAKES G. LAKES	12 19 96 75 82	10 11 25 50 50	L L L	100 100 225 225 163	39 59 333 770 100	39 49 365 720 89	2 0 4 70 0	5 1 9 -	1 11 46 15	3 2 3 6 3	3 1 14 121 15	
6380 6381 6400 6401 6402	RM A SEA RM A SHORE GMG A BQQ-2 BAS OP OA-1283 BAS OP	A202 0026 A202 0027 A041 0010 A130 0189 A130 0188	SAN DIEGO SAN DIEGO G. LAKES SAN DIEGO SAN DIEGO	31 17 82 26 26	252 252 50	P L L L	100 100 163 225 225	1651 1709 1062 104 337	1739 1754 969 111 343	0 0 0 1	1	17 0 31 0 3	1 - 3 - 1	17 0 31 1 3	
6418 6419 6444 6451 6452	DIVER SECOND SCUBA DIVER I IN STS "A" EW CM TECH RES EM CM TECH	A433 0022 A433 0023 A130 0204 A102 0214 A102 0214	WASH DC WASH DC SAN DIEGO CORRY CORRY	86 29 96 68 47	4 3 25 25	և Ն Լ	0 0 0 0	72 25 21 154 34	25 23 21 94 28	7 0 0 26 3	13 - 19 23	22 3 0 6 0	37 12 - 5 -	29 3 0 32 8	
6457 6473 6476 6478 6501	ET (SU) EW TECH AG A1 EW FUND/PM TECH CTM EW TECH ADJ-A1	A102 0224 C420 2010 A102 0209 A102 0234 A601 2010	CORRY CHANUTE CORRY CORRY MEMPHIS	138 101 129 41	5 16 14 252	L L B	0 110 0	38 125 272 15 2731	7 34 36 - 2534	3 2 15 0 136	13 3 9 - 5	0 2 10 1 54	3 6 13 2	3 4 25 1 193	
6506 6512 6513 6515 6516	AQ-AT ABF-AT ABE-AT AE-AT AME-AT	A646 2010 C821 2010 C680 2012 C602 2012 C602 2015	MEMPHIS LAKEHURST LAKEHURST MEMPHIS MEMPHIS	64 26 45 75 62	49 24 25 100 50	r r r	201 96 96 212 96	1621 419 394 1835 668	1504 384 325 1573 589	32 4 22 34 13	2 1 6 2 2	64 8 4 52 19	4 2 1 3 3	97 16 26 87 26	1
6517 6518 6519 6520 6521	AMH-A1 AMS-A1 PR-BASIC AG-A1 TD-A7	C602 2017 C603 2010 C602 2010 C420 2010 C191 2010	MEMPHIS MEMPHIS LAKEHURST LAKEHURST MEMPHIS	49 61 70 101 39	50 50 50 16 252	L P L P	96 96 156 110 225	1521 2171 605 246 413	1397 1963 566 326 433	15 21 6 12 0	1 1 4	44 84 30 15 4	3 4 5 5	60 106 36 27 4	,
6522 6523 6527 6528 6529	AKA PH-LEVEL 1 ABH-A1 AZ-A1 ISA	C551 2010 C400 2010 C822 2010 C516 2010 A242 0010	MERIDIAN PENSACOLA LAKEHURST MERIDIAN LOWRY	51 85 24 47 82	50 52 25 25 16	F F P	105 105 96 105 105	492 425 424 553 295	449 290 406 544 233	0 30 0 17 28	8 - 3 10	14 4 4 11	3 1 1 2 4	14 34 4 28 40	
6530 6536 6537	ASE-A1 TM-AS-TORP-TECH AW-A1	C602 2019 A123 0127 C210 2010	MEMPHIS ORLANDO MEMPHIS	64 40 80	25 25 50	L L	156 96 110	221 84 581	192 73 505	0 12 57	14 10	4 0 28	2 - 5	4 12 88	

\*P = Self-paced L = Lock-step

C = Computer Managed Instruction  $\star\star$  As defined on p. 21 B = Both Self-paced and Lock-step

N DATA FOR CLASS AT AND AS COURSES (continued)

ACADEMIC ATTRITION (#)	ACADEMIC ATTPITION ( )	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (%)	TOTAL ATTRITION (#)	TOTAL ATTRITION (%)	STANDARD ATTRITION (%)	SETBACKS (#)	SETBACKS (%)	RMS COST CODE	TOTAL COURSE COST (000's)	COST PER GRADUATE	ACADEMIC ATTRITION COST (000's)	NONACADEMIC ATTRITION COST (000's)	TOTAL ATTRITION COST (000's)	MARGINAL COST** (000's)
30 9 6 29 0	: : : :	24 4 8 608 69	4 3 5 19 5	55 12 12 608 69	9 10 8 19 5	10 10 10 10 10	303 61 67 0	41 41 37 -	5880 5880 5880 5JGB 5JFA	5550 1120 1404 5128 1357	10818 8238 8830 2028 1021	154.6 31.8 21.2 8.7 0.0	123.7 14.1 28.3 182.2 11.8	278.3 45.9 49.5 190.9 11.8	150.3 24.8 26.7 3.9
0 88 23 74 30	- • • •	345 88 18 104 20	7 6 8 7 2	345 198 41 184 50	7 13 17 12 5	10 12 12 12 12 8	0 198 31 168 103	13 13 11 10	5JBA 5DBA 5DBA 5DBA 5DBA	9578 4263 663 4323 2946	2103 3045 2986 3119 2966	0.0 198.4 41.5 156.0 86.8	534.8 198.4 32.5 219.2 57.9	534.8 396.8 74.0 375.1 114.7	278.1 222.2 41.5 210.1 81.0
10 18 114 2 0		6 18 25 2 0	3 2 4 1	14 36 137 4 0	7 4 20 2	8 8 15 5 5	18 75 317 16 0	9 8 41 7	5DBA 5DBA 5FBB 5MBB 5MCB	588 2670 3755 780 91	3094 3006 7125 3733 6975	30.4 49.6 290.7 5.3 0.0	18.2 49.6 63.8 5.3 0.0	48.7 99.3 354.5 10.6 0.0	27.3 55.6 109.9 3.7
0 0 2 0		1 10 2 7 6	2 7 2 4 2	2 10 2 9 6	<b>4</b> 7 2 5 2	4 4 6 5 5	1 3 0 13 3	2 2 7 1	5MDB 5NCB SHBB 5PDB 5PCB	218 730 494 955 1099	4842 5937 4495 5335 3340	0.0 0.0 0.0 1.5 0.0	0.0 9.6 6.1 5.4 2.2	0.0 9.6 6.1 7.0 2.2	0 5.6 2.2 2.5 1.0
16 0 103 123	14	3 0 56 33 1	10 9 4 1	24 0 162 162 2	27 - 24 18 2	12 10 25 15 0	99 0 485 686 34	78 58 59 28	9VBB - 5QCH 5QCJ 5QCK	4824 4291 361	10307 6541 3644	542.3 605.3 0.0	294.9 162.4 0.0	837.2 767.7 0.0	36.0 330.1 0
13 3 0 0	; - - -	4 1 1 0	1 6 6	17 6 1 1 0	4 4 6 6	0 3 3 3 3	193 16 0 0 5	37 11 - - 22	5QCM - - - -	1088	2733	16.0	4.9	21.0	7.8
0 0 1 0 4	- - - - -	0 0 0 0 2	- - - 2	0 0 1 0	- - 3 - 6	3 3 3 3	0 0 0 0	1	- - - - 5FDB	570	5939	86.9	43.5	130.4	41.7
0 16 0 1 0	12 - -	22 6 1 1 0	2 5 2 3 -	22 22 1 2 0	2 16 2 5	2 10 20 20 20	22 8 0 0	2 6 - -	588F 528B 5FCC 5FCC 5FCC	2274 1818 92 86 77	2031 23304 2196 2200 2340	0.0 233.4 0.0 6.5 0.0	29.9 87.5 1.9 6.5 0.0	29.9 321.0 1.9 13.1 0.0	12.6 54.6 1.0 4.4 0

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TABLE A-1. ATTRITION DATA FOR CLASS AT AND A3 COURSES

				COURSE LENGTH (Days)	NUMBER OF CONVENINGS	TYPE COURSE*	MINIMUM ASVAB	INPUT	GRADUATES	ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION (%)	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (%)	TOTAL ATTRITION (#)
CDP	SHORT TITLE	CIN	LOCATION											
6244 6245 6246 6260 6261	AFTA-AT-A1 AFTA-AQ-A1 AFTA-AX-A1 BT-A EN-A	C100 2010 C100 2010 C100 2010 A651 0010 A652 0018	MEMPHIS MEMPHIS MEMPHIS G. LAKES G. LAKES	180 180 180 53 42	51 51 51 50 50	L L P P	225 225 225 156 156	661 101 135 3266 1357	513 136 159 2528 1328	30 9 6 29 0	5 7 4 1	24 4 8 608 69	4 3 5 19 5	55 12 12 608 69
6262 6263 6264 6265 6266	MM-A ET-A1-ETN ET-A1-CTM ET-A1-ETR ET-A2-ETN	A651 0015 A100 0012 A100 0012 A100 0012 A100 0014	G. LAKES G. LAKES G. LAKES G. LAKES G. LAKES	42 68 68 68 47	50 50 50 50 50	P L L L	156 225 225 225 225	4954 1442 217 1495 968	4554 1400 222 1386 993	0 88 23 74 30	6 10 5 3	345 88 18 104 20	7 6 8 7 2	345 198 41 184 50
6267 6268 6278 6286 6287	ET-A2-CTN ET-A2-ETR AC-A1 BU-A EA-A	A100 0014 A100 0014 C222 2010 A710 0010 A412 0010	G. LAKES G. LAKES MEMPHIS GULFPORT GULFPORT	47 47 96 66 81	50 50 49 10 2	և Լ Լ Լ	225 225 110 150 105	202 900 702 229 27	190 888 527 209 13	10 18 114 2 0	5 2 17 1	6 18 25 2 0	3 2 4 1	14 36 137 4
6288 6289 6290 6291 6292	CM-A	A711 0015 A721 0018 A720 0012 A610 0022 A730 0010	GUL FPORT GUL FPORT GUL FPORT GUL FPORT GUL FPORT	61 58 79 94 61	6 12 8 12 12	ն Լ Լ Լ	150 156 150 150 150	68 140 132 172 266	45 123 110 179 329	1 0 0 2 0	2 - 1	1 10 2 7 6	2 7 2 4 2	2 10 2 9 6
6299 6300 6301 6302 6319	PC-A CTR-A CTT-A-PREP	A102 0155 A515 0018 A231 0044 A231 0023 A231 0047	CORRY FT B. HARRISON CORRY CORRY CORRY	138 24 154 89 40	25 22 50 50 33	P P P P	110 110 100 100 100	76 211 720 984 109	79 216 468 656 99	16 0 103 123 1	19 - 16 14 1	8 0 56 33 1	10 9 4 1	24 0 162 162 2
6320 6321 6322 6323 6328	CTI-A2-RUSSIAN CTI-A2-CHI-MAN CTI-A2-VIETNAM	A231 0046 A232 0021 A232 0022 A232 0023 A232 0028	CORRY GOODFELLOW GOODFELLOW GOODFELLOW GOODFELLOW	32 105 112 77 107	50 15 7 6 7	P L L L	100 206 206 206 206 206	451 131 16 16 23	398 141 18 18 19	13 3 0 0	3 2 - -	4 1 1 1 0	1 6 6	17 6 1 1 0
6329 6330 6331 6333 6337	CTI-A2-GERMAN CTI-A2-SPANISH CTI-A2-SERB-CRO	A232 0029 A232 0030 A232 0031 A232 0033 A130 0138	GOODFELLOW GOODFELLOW GOODFELLOW GOODFELLOW NEW LONDON	28 42 63 28 75	3 2 14 1 8	լ Լ Լ Լ	206 206 206 206 225	4 29 3 116	4 2 36 3 96	0 0 1 0 4	3 - 4	0 0 0 0 2	2	0 0 1 0 7
6339 6341 6343 6344 6345	OT-A SCAT-MODS 3-6 SCAT-MOD-6	A700 0010 A210 0011 A101 0134 A100 0053 A100 0052	PHIL FLEASWTRACLANT NEW LONDON NEW LONDON NEW LONDON	60 75 68 19 12	36 8 7 10 10	L L L L	156 258 100 100 100	1069 170 44 41 38	1119 78 42 39 33	0 16 0 1 0	12	22 6 1 1 0	2 5 2 3	22 22 1 2 0

<sup>\*</sup>P = Self-paced L = Lock-step

C = Computer Managed Instruction B = Both Self-paced and Lock-step

<sup>\*\*</sup> As defined on p. 21

ACADEMIC ATTRITION (=)	ACADEMIC ALIPITION ( )	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (%)	TOTAL ATTRITION (#)	TOTAL ATTRITION (%)	STANDARD ATTRITION (%)	SETBACKS (#)	SETBACKS (°)	RMS COST CODE	TOTAL COURSE COST (000's)	COST PER GRADUATE	ACADEMIC ATTRITION COST (000's)	NONACADEMIC ATTRITION COST (000's)	TOTAL ATTRITION COST (000's)	MARGINAL COST** (000's)
0 18 3 40	10	2 3 14 60	3 2 5 6	2 24 16 102	3 13 6 10	5 5 5 15	2 16 11 40	3 9 4 4	5CCB 5ABB 5BBB 5SCC	445 532 1402 2121	7951 3642 5155 2313	0.0 34.2 4.6 45.7	0.0 5.7 21.3 68.6	0.0 39.9 25.9 114.3	0 11.6 5.7 50.3
0 0 0 2 0	3	49 12 15 1 0	4 2 3 1	62 12 15 3 13	5 2 3 4 1	2 4 10 2 2	0 24 15 1 0	4 3 1	5BGB 5CBA 5BBA 5SDH 5CEB	2980 2136 1630 332 1529	2479 3322 2869 4197 1197	0.0 0.0 0.0 12.5 0.0	56.0 10.9 48.3 6.3 0.0	56.0 10.9 48.3 18.8 0.0	29.1 6.2 26.5 5.8 0
12 0 130 9	- - - - 13	12 0 64 7	1 - 3 10	12 0 199 16	1 - 9 22	1 3 3 8 7	0 1 744 0	3 30 -	5BBC 5EFB 5FCC	4443 139	2299 2446	154.8 28.8	76.2 22.4	231.1 51.1	124.8 17.4
41 0 10 0 149	11 - 3	4 9 10 0 189	1 1 1 - 10	45 9 20 0 333	12 1 2 - 17	13 5 5 3 13	176 53 92 3 512	40 6 9 13 25	5KGA 5DBA 5DBA 5ABA	2571 2937 7840	2921 2966 4664	0.0 46.0 268.7	57.1 46.0 340.9	57.1 92.0 609.6	32.0 51.5 31.1
257 80 0 4 13	7 11 2 3	220 43 4 6 4	6 6 2 3 1	453 128 4 9 18	12 17 2 5 4	15 15 5 5	108 346 2 144 61	3 40 1 56 13	5DBB 5BAA 5BDB 5QCG 5EEB	9693 4624 897 1385 1115	2900 7202 4850 8097 2693	424.0 - 0.0 11.6 19.1	363.0 - 5.6 17.3 5.9	786.9 - 5.6 28.9 25.0	275.4 2.1 10.4 11.0
29 35 0 2	6 13 1	19 47 4 8	4 17 2 4	49 82 4 10	10 28 2 5	9 20 5 7	19 259 9 12	4 68 4 6	5SCE 5VBF 5ADC 5ADD	1488 6976 630 587	3235 16376 3042 3432	80.4 17.3 0.0 3.4	52.7 23.2 7.0 13.6	133.1 40.5 7.0 17.1	48.0 13.0 3.0 6.0
0 0 0 0 104	15	7 5 0 5 20	1 1 - 1 3	7 5 0 5 127	1 1 - 1 18	1 1 1 1 15	0 0 0 0 60	- - - - 9	5SDE 5SDG 5SDL 5SDK 5DGD	706 953 118 1027 814	955 2085 1556 2078 1461	0.0 0.0 0.0 0.0 107.7	9.4 11.7 0.0 14.3 20.7	9.4 11.7 0.0 14.3 128.4	3.3 4.0 1.5 4.6 69.3
5 147 37 27 22	1 9 10 7 5	5 80 18 31 13	1 5 5 8 3	10 234 57 56 36	2 14 15 14 8	4 10 10 10	16 0 0 0	3 -	5EFP 5BBB 5BBB 5BBB 5BBB	523 8257 1993 1971 2311	1033 5753 6305 5569 5475	5.6 501.6 138.7 85.7 99.9	5.6 273.0 67.5 98.4 59.0	11.1 774.6 206.2 184.2 158.9	6.2 418.3 111.4 99.5 85.8

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TABLE A-1. ATTRITION DATA FOR CLASS AT AND AS

							IADL	.c A-1.	ALIKITI	UN DATA	FOR CLA	122 HI Y	anu as
				COURSE LENGTH (Days)	NUMBER OF CONVENINGS	TYPE COURSE*	MINIMUM ASVAB	INPUT	GRADUATES	ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION (E)	NONACADEMIC ATTRITION (#)	NONACADEMIC
CDP	SHORT TITLE	CIN	LOCATION										
6083 6093 6097 6102	UT-A TM SUB/TORP TECH EO-A PN-A	A720 0012 A123 0127 A730 0010 A500 0014	PT HUE ORLANDO PT HUE MERIDIAN	79 40 61 48	7 25 10 50	L L P	150 96 150 110	62 197 255 1023	56 146 272 917	0 18 3 40	10 1 4	2 3 14 60	
6106 6108 6115 6118 6119	HT-A2 FT-A2 GM-A SQQ 23 PAIR OP-BAS HT-A1	A700 0010 A113 0019 A041 0010 A130 0097 A780 0035	SAN DIEGO G. LAKES G. LAKES SAN DIEGO SAN FRAN	60 96 82 54 22	252 25 50 8 50	L L L P	156 225 163 225 156	1219 509 422 73 1275	1202 643 568 79 1277	0 0 0	- - - 3	49 12 15 1 0	
6122 6123 6125	HT-A1 CTI-A2-HEBREW CTI-A2-ARABIC MS-A QRTR-MSTR-BASE	A780 0035 A232 0041 A232 0042 A800 0013 A772 0010	PHIL GOODFELLOW GOODFELLOW SAN DIEGO NEW LONDON	91 54	50 4 7 73 6	L L L L	156 206 206 100 101	1178 10 33 2285 73	1179 8 30 1932 57	12 0 130 9	1 - 6 13	12 0 64 7	1
6137	ET A-3R ET-A-3N CTI-A2-FRENCH	A150 0025 A104 0010 A102 0010 A232 0040 A221 0011	MARE ISLAN G. LAKES G. LAKES GOODFELLOW G. LAKES	26 33	25 50 50 8 50	L L L L	225 225 225 206 110	353 834 967 22 1906	352 880 990 22 1681	47 0 10 0 149	11 - 1 - 8	4 9 10 0 189	1
6149	PLRS-POS-ELECT-A CMA CTM-A	A202 0014 A121 0142 A610 0022 A102 0109 A531 0016	SAN DIEGO DAM NECK PT HUE CORRY SAN DIEGO	42 117 94 96 54	252 50 9 50 25	P L P L	100 225 150 225 110	3756 740 198 198 460	3342 642 185 171 414	257 80 0 4 13	7 11 - 2 3	220 43 4 6 4	
6178 6182	STS-CLASS A EW-OP-MAINT/TECH ASH-A1 ASM-A1	A130 0029 A102 0154 C602 2023 C602 2024	SAN DIEGO CORRY MEMPHIS MEMPHIS	40 361 67 65	34 50 25 25	L L L	225 110 156 156	470 77 211 202	460 426 207 171 17	29 35 0 2	6 13 - 1	19 47 4 8	1
6195 6196	MK-114-0P-BAS SQS-DG-0P-BAS SQS-35V-38-0PBAS SQS-26-CX/AXR SH-A	A130 0083 A130 0084 A130 0085 A130 0086 A823 0012	SAN DIEGO SAN DIEGO SAN DIEGO SAN DIEGO NORFOLK	12 19 12 19 26	AR AR 11 AR 25	և Ն Լ Լ	225 225 225 225 100	699 447 67 483 724	739 457 76 494 557	0 0 0 0 104	- - - 15	7 5 0 5 20	
6240 6241	SH-A AVA-AT-A1 AVA-AQ-A1 AVA-AX-A1 AVA-TD-A1	A823 0012 C100 2013 C100 2013 C100 2013 C100 2013	SAN DIEGO MEMPHIS MEMPHIS MEMPHIS MEMPHIS	26 102 102 102 71	25 252 252 252 252 252	C C C	100 225 225 225 225 225	530 1679 389 389 451	506 1435 316 354 422	5 147 37 27 22	1 9 10 7 5	5 80 18 31 13	

<sup>\*</sup>P = Self-paced C = Computer Managed Instruction L = Lock-step B = Both Self-paced and Lock-step

<sup>\*\*</sup> As defined on p. 21

RITION DATA FOR CLA S AT AND AS COURSES

L															
ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION (2)	NONACADEMIC ATTRITION (#)	NONACADEMIC ATTRITION (%)	TOTAL ATTRITION (#)	TOTAL ATTRITION (%)	STANDARD ATTRITION (%)	SETBACKS (#)	SETBACKS (%)	RMS COST CODE	TOTAL COURSE COST (000's)	COST PER GRADUATE	ACADEMIC ATTRITION COST (000's)	NONACADEMIC ATTRITION COST (000's)	TOTAL ATTRITION COST (000's)	MARGINAL COST** (000's)
424 10	14	235	8 1	660 14	21 4 -	- 15 8	- 59	16	5898 5dec	718	2163	27.5	8.3	35.8	13.6
0	-	2 2	3 1	2 2	3 1	0	0 2	0 1	5PDK 5SDN	290 422	3668 2851	0.0 0.0	3.5 5.6	3.5 5.6	1.1 2.0
2 3 0 7	4 4 - 1	0 0 2 23 0	- 1 3	2 3 2 30 0	4 4 1 4	5 5 5 10 0	29 34 8 103 11	47 37 3 13 20	5QED 5QES 5AGB 5ACF	103 511 501 1364	2011 7194 2043 1918	2.6 17.4 0.0 6.5	0.0 0.0 2.4 21.3	2.6 17.4 2.4 27.8	1.0 8.0 11.1
8 19 72 42 17	4 8 12 11 3	10 12 23 7 40	5 5 4 2 7	17 29 92 50 58	9 12 15 13 10	20 20 10 10	72 30 40	12 8 7	5FCB 5FCB 5CBB 5DBP 5CBC	1356 567 1282	2562 1 <i>6</i> 49 2489	86.6 43.7 23.1	27.6 7.3 54.4	114.2 51.0 77.6	40.0 28.0 40.3
43 48 16 18 74	12 4 10 9 8	21 24 9 12 45	6 2 6 6 5	66 72 25 29 123	18 6 15 14	10 10 10 5	21 60 86 6 197	6 5 44 3 20	5DBR 5SDB 5QCF 5CBA	533 3698 590 3284	1720 3152 4278 3836	45.1 147.2 46.2	22.0 73.6 26.0	67.2 220.8 72.2	35.6 77.2 23.8 99.0
9 19 5 3 6	6 9 5 4 9	3 2 8 4 7	2 1 7 5	11 21 14 7	8 10 12 9	5 5 12 10 10	7 23 37 0	5 11 30	5ABB 5ABB 5CBB 5EBA 5ECA	424 609 689 588 389	3448 3170 7027 7352 6832	10.0 28.1 25.6 8.0 16.8	3.3 3.0 41.0 10.7 19.6	13.4 31.1 66.6 18.7 36.3	3.9 9.0 18.0 6.9 14.2
32 89 29 10 0	8 7 2 4	16 63 43 10 0	4 5 3 4	45 157 73 20 0	11 12 5 8	15 19 8 8	283 50 88 15	54 4 6 6	5QCB 5SCD 5SBB 5SBC	2468 2526 2813 615	7050 2255 2035 2675	98.8 98.4 31.8 10.8	49.4 69.6 47.1 10.8	148.1 168.0 78.9 21.6	47.4 77.3 36.3 9.7
53 44 0 10 9	8 - 1 16	26 16 19 20 3	4 3 1 2 6	80 61 19 31 12	12 11 1 3 21	22 14 5 5	102 44 156 140 0	15 8 8 13	5KBB 5BBB 5GBA 5CDB 5BHD	4628 1665 5337 2349 331	7738 3364 2847 2382 8497	285.6 47.0 0.0 8.7 9.8	140.1 17.1 55.3 17.4 3.3	425.7 64.1 55.3 26.2 13.1	200.1 34.0 28.8 14.4 5.4
3 0 0 0 1	6 - - 1	1 2 3 0 12	2 14 4 - 8	4 2 3 0 14	8 14 4 - 9	10 7 4 5 4	0 0 2 4	2 2 1	58HB 5ACB 5CBB 5ABB 5AEB	270 82 348 862 474	5630 6839 4521 3882 331	4.8 0.0 0.0 0.0 0.0	1.6 0.0 5.7 0.0 6.7	6.3 0.0 5.7 0.0 7.3	2.4 0 1.3 2.5

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R.C.

TABLE A-1. ATTRITION DATA FOR CLASS AT AN

					COURSE LENGTH (Days)	NUMBER OF CONVENINGS	TYPE COURSE*	MINIMUM ASVAB	INPUT	GRADUATES	ACADEMIC ATTRITION (#)	ACADEMIC ATTRITION (%)	NONACADEMIC ATTRITION (#)
-	CDP	SHORT TITLE	CIN	LOCATION									
	130E 340S 348X 532R 541U	NUC PWR AVR-A1 SQQ 23 PAIR OPBAS MALRE - A SQS 53 OPBAS	A661 0010 C100 2014 A130 0097 C680 2015 A130 0103	ORLANDO MEMPHIS CHAS LAKEHURST SAN DIEGO	170 35 26 40 19	8 50 4 7 AR	L L L	0 225 0 0 225	3806 352 - 74 161	1822 332 - 79 148	424 10 0 0	14 3 - -	235 3 - 2 2
	2053 3197 3522 3585 4084	CTT-FLR-11/15 OPS CTT-ELINT OP AVCC - A1 BASHEL - A1 CTT CLSC WIZ OP	A231 0024 A231 0028 C780 2010 C600 2010 A231 0038	CORRY CORRY MEMPHIS MEMPHIS WINTER HARBOR	40 68 28 42 98	51 25 25 50 3	P P L L	100 100 0 0 100	45 77 251 769 58	51 71 245 711 44	2 3 0 7 0	4 4 - 1	0 0 2 23 0
	5261 5309 6001 6002 6005	SCAT-MOD-2 SCAT-MOD-1 QMA QMA SM-A	A100 0036 A100 0035 A061 0012 A061 0012 A061 0011	NEW LONDON NEW LONDON ORLANDO SAN DIEGO ORLANDO	26 26 40 40 40	10 10 24 15 24	L L L L	0 0 101 101 105	185 231 605 383 588	186 222 529 344 515	8 19 72 42 17	4 8 12 11 3	10 12 23 7 40
	6006 6015 6020 6025 6027	SM-A SURF-ST-CLASS A CTA-A GMT-A FTA-A	A061 0011 A130 0037 A510 0015 A644 0014 A113 0010	SAN DIEGO SAN DIEGO CORRY TRAGRUPAC G. LAKES	40 40 57 61 75	15 65 50 12 50	L P L L	105 225 163 156 225	359 1178 166 224 915	310 1173 138 165 856	43 48 16 18 74	12 4 10 9 8	21 24 9 12 45
	6034 6036 6041 6046 6047	TM-SS-TORP-OP TM-OP-A/S TORP MN-A IM-A OM-A	A123 0127 A123 0127 A647 0016 A670 0010 A670 0018	ORLANDO ORLANDO CHAS G. LAKES G. LAKES	54 40 96 131 121	25 25 12 50 50	L L P P	96 96 156 163 163	152 201 114 78 68	123 192 98 80 57	9 19 5 3 6	6 9 5 4 9	3 2 8 4 7
	6053 6057 6059 6061 6063	CTO-A YN-A SK CLASS A DK-A INFO SPEC JO A1	A580 0016 A510 0012 A551 0014 A542 0011 A570 0011	CORRY MERIDIAN MERIDIAN MERIDIAN FT. HARRISON	117 48 47 54 68	50 50 50 12 14	P L L L	105 163 105 105 163	415 1344 1463 257 53	350 1120 1382 230 66	32 89 29 10 0	8 7 2 4	16 63 43 10 0
	6065 6068 6070 6073 6076	MUSIC BASIC MR/A EM/A IC-A PM-A	A450 0010 A702 0019 A662 0016 A623 0012 A790 0012	LITTLE CREEK SAN DIEGO G. LAKES SAN DIEGO SAN DIEGO	166 80 59 61 138	34 25 50 50 5	<u>լ</u> Լ Լ Լ	0 156 156 156 156	663 554 1868 1028 65	598 495 1874 986 39	53 44 0 10 9	8 8 - 1 16	26 16 19 20 3
	6077 6078 6079 6081 6082	ML-A EA-A CE-A BU-A SW-A	A790 0010 A412 0010 A721 0018 A710 0010 A711 0015	SAN DIEGO PT HUE PT HUE PT HUE PT HUE	95 81 58 66 61	3 2 10 9 6	L L L	156 105 156 150 150	55 14 86 196 147	48 12 77 222 143	3 0 0 0	6 - - 1	1 2 3 0 12

<sup>\*</sup>P = Self-paced L = Lock-step

1

C = Computer Managed Instruction B = Both Self-paced and Lock-step

<sup>\*\*</sup> As defined on p. 21

# APPENDIX A

ATTRITION DATA FOR CLASS A1 AND A3 COURSES

TABLE B-1. QUALIFIED AND UNQUALIFIED #

				Q	UALIFIED INPUT		UALIFIED INPUT	
CDP	SHORT TITLE	CIN	TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NIMBFD
			1	2	3	4	5	6
					2÷1		4÷1	
6241	AVA-AX-A1	C100 2013	320	287	89.7	33	10.3	2
6242	AVA-TD-A1	C100 2013	393	306	77.9	87	22.1	2
6244	AFTA-AT-A1	C100 2010	606	533	88.0	73	12.0	3
6245	AFTA-AQ-A1	C100 2010	91	83	91.2	8	8.8	9
6246	AFTA-AX-A1	C100 2010	127	107	84.3	20	15.7	6
6260	BT-A	A651 0010	2994	2330	77.8	664	22.2	2
6261	EN-A	A652 0018	1160	967	83.4	193	16.6	0
6262	MM-A	A651 0015	4617	3786	82.0	831	18.0	1
6263	ET-A1-ETN	A100 0012	1321	1208	91.4	113	8.6	8
6264	ET-A1-CTM	A100 0012	202	183	90.6	19	9.4	2
6265	ET-A1-ETR	A100 0012	1401	1287	91.9	114	8.1	7
6266	ET-A2-ETN	A100 0014	903	821	90.9	82	9.1	3
6267	ET-A2-CTN	A100 0014	196	177	90.3	19	9.7	9
6278	ET-A2-ETR	A100 0014	851	807	94.8	44	5.2	2
6278	AC-A1	C222 2010	463	393	84.9	70	15.1	8
6286	BU-A	A710 0010	147	129	87.8	18	12.2	1
6287	EA-A	A412 0010	22	19	86.4	3	13.6	0
6288	SW-A	A711 0015	49	43	87.8	6	12.2	0
6289	CE-A	A721 0018	114	103	90.4	11	9.6	0
6290	UT-A	A720 0012	99	84	84.8	15	15.2	0
6291	CM-A	A610 0022	115	91	79.1	24	20.9	1
6292	EO-A	A730 0010	181	162	89.5	19	10.5	0
6299	EW-OP-TECH	A102 0155	46	39	84.8	7	15.2	1
6300	PC-A	A515 0018	197	149	75.6	48	24.4	0
6301	CTR-A	A231 0044	429	315	73.4	114	26.6	8
6302	CTT-A-PREP		341	314	92.1	27	7.9	7
6319	CTT/ICR/NON MORSE		15	13	86.7	2	13.3	0
6320	CTT/SPE/NON MORSE		123	109	88.6	14	11.4	3
6321	CTI-A2-RUSSIAN		110	85	77.3	25	22.7	3
6322	CTI-A2-CHI-MAN		12	10	83.3	2	16.7	0
6323 6328 6329 6330 6331		A232 0023 A232 0028 A232 0029 A232 0030 A232 0031	16 13 3 4 18	11 9 1 2 6	68.7 69.2 33.3 50.0 33.3	5 4 2 2 12	31.3 30.8 66.7 50.0 66.7	C C C I
6333 6337 6341 6343 6344	CTI-A2-SERB-CRO UWFT-CLASS A OT-A SCAT-MODS 3-6 SCAT MOD 6	A232 0033 A130 0138 A210 0011 A101 0134 A100 0053	109 132 29 31	96 107 28 28	88.1 81.1 96.6 90.3	13 25 1 3	11.9 18.9 3.4 9.7	4 1 (

<sup>\*</sup>Significant Chi-square = 3.841

buactereo INF 7	ACA ATT	DEMIC RITION	QU AT	ALIFIED TRITES	UNQUALIFIED ATTRITES					
OF TUTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER	% OF QUAL INPUT	© OF ACADEMIC ATTRITES	ivufiber	% OF UNQUAL ATTRITES	% OF ACADEMIC ATTRITES	CHI-SQUARE	
5	6	7	8	9	10	11	12	13	14	
4+1	~	6÷1		8÷1	8÷1		11÷1	11÷6		
10.3 22.1 12.0 8.8 15.7	22 23 32 9 6	6.9 5.9 5.3 9.9 4.7	14 12 23 7 6	4.9 3.9 4.3 8.4 5.6	63.6 52.2 71.9 77.8 100.0	8 11 9 2 0	24.2 12.6 12.3 25.0	36.4 47.8 28.1 22.2	14.44* 7.84* 6.72* 0.77 0.26	
22.2 16.6 18.0 8.6 9.4	21 0 12 89 23	0.7 0 0.3 6.7 11.4	8 0 6 77 20	0.3 0 0.2 6.4 10.9	38.1 0 50.0 86.5 87.0	13 0 6 12 3	2.0 0 0.7 10.7 15.8	61.9 0 50.0 13.5 13.0	17.09* - 6.32* 2.33 6.53*	
8.1 9.1 9.7 5.2 15.1	75 32 9 20 87	5.4 3.5 4.6 2.4 18.8	57 28 8 18 62	4.4 3.4 4.5 2.2 15.8	76.0 87.5 88.9 90.0 71.3	18 4 1 2 25	15.8 4.8 5.3 4.5 35.7	24.0 12.5 11.1 10.0 28.7	24.48* 0.14 0.18 0.23 14.20*	
12.2 13.6 12.2 9.6 15.2	1 0 0 0 0	0.7 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	1 0 0 0	5.6 0 0 0 0	100.0 0 0 0	1.34	
20.9 10.5 15.2 24.4 26.6	1 0 16 0 81	0.9 0 34.8 0 18.9	1 0 11 0 48	1.1 0 28.2 0 15.2	100.0 0 68.8 0 59.3	0 0 5 0 33	0 0 71.4 0 28.9	0 0 31.3 0 40.7	0.52 3.17 9.40*	
7.9 13.3 11.4 22.7 16.7	70 0 3 3 0	20.5 0 2.4 2.7 0	59 0 2 3 0	18.8 0 1.8 3.5 0	84.3 0 66.7 100.0 0	11 0 1 0 0	40.7 0 7.1 0	15.7 0 33.3 0	6.06* 8.51* 0.06	
31.3 30.8 66.7 50.0 66.7	0 0 0 0 1	0 0 0 0 5.6	0 0 0 0 1	0 0 0 0 16.7	0 0 0 0 100.0	0 0 0 0	0 0 0 0	0 0 0 0	- - - 0.04	
11.9 18.9 3.4 9.7	4 16 0 1	3.7 12.1 0 3.2	4 12 0 1	4.2 11.2 0 3.6	100.0 75.0 0 100.0	0 4 0 0	0 16.0 0	0 25.0 0	0.03 0.1 - 1.92	
								53/54		

TABLE B-1. QUALIFIED AND UNQUALI

					QUALIFIED INPUT	<del></del>	UNQUALIFIED INPUT	
CDP	SHORT TITLE	CIN	TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER
			1	2	3	4	5	6
ļ					2÷1		4÷1	
6345	SCAT-MOD-5	A100 0052	31	26	83.9	5	16.1	0
6346	SCAT-MOD-4	A100 0051	33	29	87.9	4	12.1	2
6347	SCAT-MOD-3	A100 0050	49	42	85.7	7	14.3	0
6376	FTG-A2	A113 0019	288	240	83.3	48	16.7	3
6377	FTG-A1	A113 0010	673	592	88.0	81	12.0	72
6378	GMT ASROC A	A041 0010	90	55	61.1	35	38.9	0
6380	RM-A SEA	A202 0026	1564	1369	87.5	195	12.5	3
6400	GMG A	A041 0010	942	617	65.5	325	34.5	1
6401	BQQ-2-BAS-OP	A130 0189	94	86	91.5	8	8.5	1
6402	OA-1283 BAS OP	A130 0188	310	275	88.7	35	11.3	0
6473	AG-A1	C420 2010	76	72	94.7	4	5.3	1
6501	ADJ-A1	C601 2010	1730	1503	86.9	227	13.1	88
6506	AO-A1	C646 2010	1202	1023	85.1	179	14.9	28
6512	ABF-A1	C821 2010	378	320	84.7	58	15.3	6
6513	ABE-A1	C680 2012	330	283	85.8	47	14.2	22
6515	AE-A1	C602 2012	1088	930	85.5	158	14.5	20
6516	AME-A1	C602 2015	478	416	87.0	62	13.0	7
6517	AMH-A1	C602 2017	857	745	86.9	112	13.1	5
6518	AMS-A1	C603 2010	1368	1194	87.3	174	12.7	10
6519	PR-BASIC	C602 2010	382	312	81.7	70	18.3	6
6520	AG-A1	C420 2010	149	132	88.6	17	11.4	6
6521	TD-A1	C191 2010	372	285	76.6	87	23.4	2
6522	AK-A	C551 2010	410	336	82.0	74	18.0	4
6523	PH-LEVEL 1	C400 2010	264	236	89.4	28	10.6	12
6527	ABH-A1	C822 2010	404	328	81.2	76	18.8	2
6528	AZ-A1	C516 2010	366	269	73.5	97	26.5	8
6529	IS-A	A242 0010	236	199	84.3	37	15.7	26
6530	ASE-A1	C602 2019	112	96	85.7	16	14.3	0
6536	TM-AS-TORP-TECH	A123 0127	71	63	88.7	8	11.3	12
6537	AW-A1	C210 2010	458	397	86.7	61	13.3	53

<sup>\*</sup>Significant Chi-square = 3.841

# QUALIFIED AND UNQUALIFIED ATTRITION (continued)

UNQUALIFIED INPUT		ACADEMIC ATTRITION	Qt A	JALIFIED TTRITES			UNQUALIF ATTRITES	IED	
% OF TOTAL INPUT	NUMBER	% OF TOTAL INPUT	NUMBER	% OF QUAL INPUT	% OF ACADEMIC ATTRITES	NUMBER	% OF UNQUAL INPUT	% OF ACADEMIC ATTRITES	CHI-SQUARE
5	6	7	8	9	10	11	12	13	14
4÷1		6÷1		8÷1	8÷6		11+1	11+6	
16.1	0	0	0	0	0	0	0	0	0
12.1	2	6.1	1	3.4	50.0	1	25.0	50.0	0.3
14.3	0	0	0	0	0	0	0	0	-
16.7	3	1.0	2	0.8	66.7	1	2.1	33.3	0
12.0	72	10.7	55	9.3	76.4	17	21.0	23.6	9.02*
38.9 12.5 34.5 8.5 11.3	0 3 1 1 0	0 0.2 0.1 1.1	0 1 0 1 0	0 7.3 0 1.2 0	0 33.3 0 100.0	0 2 1 0	0 1.0 0.3 0	0 66.7 100.0 0	3.88* 0.11 2.23
5.3	1	1.3	1	1.4	100.0	0	0	0	4.07*
13.1	88	5.1	69	4.6	78.4	19	8.4	21.6	5.08*
14.9	28	2.3	22	2.2	78.6	6	3.4	21.4	0.51
15.3	6	1.6	5	1.6	83.3	1	1.7	16.7	0.23
14.2	22	6.7	14	4.9	63.6	8	17.0	36.4	7.60*
14.5	20	1.8	10	1.1	50.0	10	6.3	50.0	17.85*
13.0	7	1.5	4	1.0	57.1	3	4.8	42.9	3.26
13.1	5	0.6	3	0	60.0	2	1.8	40.0	1.27
12.7	10	0.7	8	1.0	80.0	2	1.1	20.0	4.72*
18.3	6	1.6	4	1.3	66.7	2	2.9	33.3	0.18
11.4	6	4.0	4	3.0 <sup>o</sup>	66.7	2	11.8	33.3	1.14
23.4	2	0.5	1	0.4	50.0	1	1.1	50.0	2.92
18.0	4	1.0	2	1.0	50.0	2	2.7	50.0	1.03
10.6	12	4.5	8	3.4	66.7	4	14.3	33.3	4.57*
18.8	2	0.5	1	0.3	50.0	1	1.3	50.0	0.05
26.5	8	2.2	3	1.1	37.5	5	5.2	62.5	3.72
15.7	26	11.0	16	8.0	61.5	10	27.0	38.5	9.62*
14.3	0	0	0	0	0	0	0	0	-
11.3	12	16.9	11	17.5	91.7	1	12.5	8.3	0.73
13.3	53	11.6	34	8.6	64.2	19	31.1	35.8	24.19*

# APPENDIX C

FY 76 VS. FY 77 COMMON COURSES; ATTRITION DATA COMPARISON

TABLE C-1. FY 76 VS. FY 77 COMMON COURSE:

CDP	SHORT TITLE	CIN								NONA	CADEMIC A	35 - 8 20 4 1 +2 0 3 +2 0 1 35 6 -  42 81 11 2 1 -1 2 1 0 3  12 2 - +6 5 5 +5 4 5 23 0 2 35 1 7						
				NUMBER			ERCENT			NUMBER	<del></del>							
			FY76	FY77		FY76	FY77		FY76	FY77		FY76	FY					
130E 340S 532R 541U 1300	NUC PWR AVR-A1 MALRE-A SQS 53 OP BASIC NUC PWR	A661 0010 C100 2014 C680 2015 A130 0103 A661 0010	60 3 0	424 10 0 0	+424 -50 -3 0 -111	10 3 0 18	14 3 - -	+14 -7 -3 0 -18	23 0 0 3	235 3 2 2	+235 -20 +2 +2 -35	0	8 1 3 1					
1301 2053 3197 3522 3585	NUC PWR CTT-FLR 11/15 OPS CTT ELINT OP AVCC-A1 BASNEL-A1	A661 0010 A231 0024 A231 0028 C780 2010 C600 2010	336 0 1 0 15	2 3 0 7	-336 +2 +2 0 -8	18 0 1 0 2	- 4 4 - 1	-18 +4 +3 0 -1	142 1 1 3 23	0 0 2 23	-142 -1 -1 -1 0	1 1 2	- - 1 3					
3806 5261 5309 6001 6002	ET SEIR SCAT-MOD-2 SCAT-MOD-1 QM-A QM-A	A104 0012 A100 0036 A100 0035 A061 0012 A061 0012	0 6 9 5 7	8 19 72 42	0 +2 +10 +67 +37	0 7 5 1 2	4 8 12 11	0 -3 +3 +11 +9	12 4 7 0 7	10 12 23 7	-12 +6 +5 +23 0	5 4 0	5 5 4 2					
6005 6006 6015 6020 6025	SM-A SM-A SURF-ST-CLASS A CTA-A GMT-A	A061 0011 A061 0011 A130 0037 A510 0015 A644 0014	19 26 39 11 17	17 43 48 16 18	-2 +17 +9 +5 +1	4 9 4 5 6	3 12 4 10 9	-1 +3 0 +5 +3	5 6 10 4 9	40 21 24 9 12	+35 +15 +14 +5 +3	1 2 1 2 3	7 6 2 6 6					
6027 6034 6036 6041 6046	FTA-A TM-SS-TORP OP TM-OP-A/S-TORP 6 MN-A IM-A	All3 0010 Al23 0127 Al23 0127 A647 0016 A670 0010	141 4 0 33 6	74 9 19 5 3	-67 +5 +19 -28 -3	7 1 0 18 6	8 6 9 5 4	+1 +5 +9 -13 -2	120 4 2 9 8	45 3 2 8 4	-75 -1 0 -1 -4	6 1 1 5 8	5 2 1 7 5					
6047 6053 6057 6059 6061	QM-A CTO-A YN-A SK-CLASS A DK-A	A670 0018 A580 0016 A510 0012 A551 0014 A542 0011	4 31 135 46 10	6 32 89 29 10	+2 +1 -46 -17 0	5 5 10 3 4	9 8 7 2 4	+4 +3 -3 -1 0	10 18 107 15 2	7 16 63 43 10	-3 -2 -44 +28 +8	11 3 8 1 1	11 4 5 3 4					
6063 6065 6068 6070 6071	INFO SPEC JO A1 MUSIC BASIC MR/A EM/A EM/A	A570 0011 A450 0010 A702 0019 A662 0016 A662 0016	0 81 34 13 0	0 53 44 0	0 -28 +10 -13 0	0 9 6 1 0	- 8 8 - -	0 -1 +2 -1 0	0 62 11 27 24	0 26 16 19	0 -36 +5 -8 -24	0 7 2 2 2	4 3 1					
6073 6076 6077 6078 6079	IC-A PM-A ML-A EA-A CE-A	A623 0012 A790 0012 A790 0010 A412 0010 A721 0018	0 4 3 0 2	10 9 3 0	+10 +5 0 0 -2	0 7 7 0 1	1 16 6 -	+1 +9 -1 0 -1	12 1 1 1 4	20 3 1 2 3	+8 +2 0 +1 -1	1 2 2 2 2	2 6 2 14					

. FY 77 COMMON COURSES; ATTRITION DATA COMPARISON

NACADEMIC	ATTRITION
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TOTAL ATTRITION

SETBACKS

ER	PERCENT		N	IUMBER		<u> </u>	ERCENT		NI NI	JMBER			PERCENT			
7	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ
5322	+235 -20 +2 +2 -35	4 0 0 6	8 1 3 1	+8 -3 +3 +1 -6	80 3 0 145	660 14 2 2	+660 -66 -1 +2 -145	13 3 0 23	21 4 3 1	+21 -9 0 +1 -23	149 1 0	59 0 2	0 -90 -1 +2 0	23 1 0 0	16 0 1	0 -7 -1 +1 0
0 0 2 3	-142 -1 -1 -1 0	8 1 1 2 3	- - 1 3	-8 -1 -1 -1 0	464 1 2 3 39	2 3 2 30	-464 +1 +1 -1 -9	24 1 2 2 5	4 4 1 4	-24 +3 +2 -1	0 40 71 2 79	29 34 8 103	0 -11 -37 +6 +24	0 29 53 1 10	47 37 3 13	0 +18 -16 +2 +3
0 12 23 7	-12 +6 +5 +23 0	2 5 4 0 2	5 5 4 2	-2 0 +1 +4 0	12 10 16 11 14	17 29 92 50	-12 +7 +13 +81 +36	2 11 9 2 4	9 12 15 13	-2 -2 +3 +13 +9	116 0 0 22 24	- - 72 30	-116 0 0 +50 +6	18 0 0 4 7	12	-18 0 0 +8 +1
10 21 24 9	+35 +15 +14 +5 +3	1 2 1 2 3	7 6 2 6 6	+6 +4 +1 +4 +3	24 37 49 16 27	58 66 72 25 29	+34 +29 +23 +9 +2	5 12 5 7 9	10 18 6 15 14	+5 +6 +1 +8 +5	77 37 29 231 6	40 21 60 86 6	-37 -16 +31 -145 0	15 12 4 69 2	7 6 5 44 3	-8 -6 +1 -25 +1
45 3 2 8 4	-75 -1 0 -1 -4	6 1 1 5 8	5 2 1 7 5	-1 +1 0 +2 -3	248 8 2 43 14	123 11 21 14 7	-125 +3 +19 -29 -7	12 2 1 23 14	13 8 10 12 9	+1 +6 +9 -11 ~5	226 17 5 64 0	197 7 23 37 0	-29 -10 +18 -27 0	11 4 2 32 0	20 5 11 30	+9 +1 +9 -2 0
7 16 53 43	-3 -2 -44 +28 +8	11 3 8 1 1	11 4 5 3 4	0 +1 -3 +2 +3	15 57 239 62 12	13 45 157 73 20	-2 -12 -82 +11 +8	1 <sup>.</sup> 6 9 17 4 5	19 11 12 5 8	+3 +2 -5 +1 +3	0 607 454 62 5	0 283 50 88 15	0 -324 -404 +26 +10	0 67 30 4 2	54 4 6 6	0 -13 -26 +2 +4
0 26 16 19	0 -36 +5 -8 -24	0 7 2 2 2	- 4 3 1	0 -3 +1 -1 -2	0 139 46 41 24	0 80 61 19	0 -59 +15 -22 -24	0 15 8 3 2	12 11 1	0 -3 +3 -2 -2	0 139 108 201 49	0 102 <b>44</b> 156	0 -37 -64 -45 -49	0 15 18 14 4	15 8 8	0 0 -10 -6 -4
20 3 1 2 3	+8 +2 0 +1 -1	1 2 2 2 2	2 6 2 14 4	+1 +4 0 +12 +2	12 5 4 1 5	31 12 4 2 3	+19 +7 0 +1 -2	1 9 9 2 3	3 21 8 14 4	+2 +12 -1 +12 +1	219 4 0 0 2	140 0 0 0 2	-79 -4 0 0	17 7 0 0	13	-4 -7 0 0 +1

TABLE C-1. FY 76 VS. FY 77 COMMON COURSES; AT

CDP	SHORT TITLE	CIN		ACA	ADEMIC .	ATTRITION				NOI	NACADEMI	IC ATTRITI	ON
			NU	MBER		P	ERCE	NT		NUMBER		P	ERCEN
			FY76	FY	77 <b>Δ</b>	FY76	FY	<sup>77</sup> $\Delta$	FY76	FY7	΄ Δ	FY76	FY7
6081 6082 6083 6093 6097	BU-A SW-A UT-A TM SUB/TORP TECH EO-A	A710 0010 A711 0015 A720 0012 A123 0127 A730 0010	0 1 0 0 3	0 1 0 18 3	0 0 0 +18	0 1 0 0 1	1 - 10 1	0 0 0 +10 0	4 5 3 2 8	12 2 3 14	-4 +7 -1 +1 +6	2 5 3 1 3	8 3 2 5
6102 6103 6106 6108 6115	PN-A OT-A HT-A2 FT-A2 GM-A	A500 0014 A210 0011 A700 0010 A113 0019 A041 0010	104 31 0 9	40 - 0 0 0	-64 -31 0 -9	9 8 0 1 7	4 - - -	-5 -8 0 -1 -7	45 11 0 27 108	60 49 12 15	+15 -11 +49 -15 -93	4 3 0 3 8	6 - 4 2 3
6118 6119 6120 6121 6122	SQQ 23 PAIR OP-BAS HT-A1 HT-A1 CTI-A2 THAI CTI-A2-HEBREW	A130 0097 A780 0035 A780 0035 A232 0043 A232 0041	0 0 0 0	2 0 12 -	+2 0 +12 0 0	0 0 0 0	3	+3 0 +1 0	0 11 15 0	1 0 12 -	+1 -11 -3 0	0 1 1 0 0	1 -
6123 6125 6126 6131 6135	CTI-A2-ARABIC MS-A QRTR-MSTR BASE DS-A ET-A-3R	A232 0042 A800 0013 A772 0010 A150 0025 A104 0010	0 48 3 33 12	0 130 9 41 0	0 +82 +6 +8 -12	0 2 4 9 1	- 6 13 11	0 +4 +9 +2 -1	0 0 7 4 23	0 64 7 4 9	0 +64 0 0 -14	0 0 9 1 2	3 10 1
6137 6140 6142 6144 6146	ET-A-3N CTI-A2-FRENCH OSA RMA PLRS-POS-ELECT-A	A102 0010 A232 0040 A221 0011 A202 0014 A121 0142		10 0 149 257 80	-7 0 +82 -28 +2	2 0 3 8 8	1 - 8 7 11	-1 0 +5 -1 +3	26 0 112 360 68	10 0 189 220 43	-16 0 +77 -140 -25	3 0 5 10 7	1 10 6 6
6149 6161 6167 6172 6178	CM-A CTM-A OP-A STS-CLASS A EW-OP-MAINT/TECH	A610 0022 A102 0109 A531 0016 A130 0029 A102 0154	0 3 17 13 51	0 4 13 29 35	0 +1 -4 +16 -16	0 1 4 3 14	2 3 6 13	0 +1 -1 +3 -1	2 0 0 8 10	4 6 4 19 47	+2 +6 +4 +11 +37	1 0 0 2 3	2 3 1 4 17
6182 6183 6184 6193 6194	ASH-A1 ASM-A1 INTRO WELD MK-111-OP-BAS MK-114-OP-BAS	C602 2023 C602 2024 A700 0011 A130 0088 A130 0083	2 6 0 1 0	0 2 - - 0	-2 -4 0 -1 0	1 3 0 1 0	ī - -	-1 -2 0 -1	3 7 0 0	4 8 - 7	+1 -1 0 0 +7	2 4 0 0	2 4 - 1
6195 6196 6197 6198 6206	SQS-DG-OP-BAS SQS-35V-38 OP-BAS SQS-26-BX-OP-BAS SQS-26-CX/AXR SH-A	A130 0084 A130 0085 A130 0092 A130 0086 A823 0012	0 1 0 0 42	0 0 - 0 104	0 -1 0 0 +62	0 2 0 0 7	- - - 15	0 -2 0 0 +8	0 0 0 4	5 0 - 5 20	+5 0 0 +1 +8	0 0 0 1 2	1 - 1 3

FY 77 COMMON COURSES; ATTRITION DATA COMPARISON (continued)

NACADEMIC ATTRITION						TOTAL	ATTRITION	!		SETBACKS						
₹	ŀ	PERCENT			NUMBE	R	F	ERCEN	NT.		NUMBER	₹_	Р	ERCENT		
<sup>17</sup> Δ	FY76	FY77	Δ	FY7	6 FY	77 <b>Δ</b>	FY76	FY	77 <b>Δ</b>	FY7	6 FY7	77 <b>Δ</b>	FY76	FY77	Δ	
-4 +7 -1 +1 +6	2 5 3 1 3	- 8 3 2 5	-2 +3 0 +1 +2	4 6 3 2 11	0 14 2 24 16	-4 +8 -1 +22 +5	2 6 3 1 4	9 3 13 6	-2 +3 0 +12 +2	6 0 1 2 11	4 1 2 16	-2 +1 +1 +14 -11	3 0 1 1 4	2 1 3 9 4	-1 +1 +2 +8 0	
+15 -11 +49 -15 -93	4 3 0 3 8	6 - 4 2 3	+2 -3 +4 -1 -5	153 44 25 36 196	102 62 12 15	-51 -44 +37 -24 -181	13 11 1 4 14	10 5 2 3	-3 -11 +4 -2 -11	245 133 0 74 137	40 0 24 15	-205 -133 0 -50 -122	20 20 0 8 10	4 - - 4 3	-16 -20 0 -4 -7	
+1 -11 -3 0	0 1 0 0	1 - 1	+1 -1 0 0	0 11 15 0 0	3 13 12	+3 +2 -3 0	0 1 1 0 0	4 1 1	+4 0 0 0 0	0 216 0 0	1 0 0	+1 -216 0 0	0 18 0 0	1	+1 -18 0 0 0	
0 +64 0 0 -14	0 0 9 1 2	3 10 1	0 +3 +1 0 -1	0 48 10 37 2	0 199 16 45 9	0 +151 +6 +8 +7	0 2 12 10 23	9 22 12 1	0 +7 +10 +2 -22	0 123 0 87 84	1 744 0 176 53	+1 +621 0 +89 -31	0 5 0 22 7	3 30 40 6	+3 +25 0 +18 -1	
-16 0 +77 -140 -25	3 0 5 10 7	1 - 10 6 6	-2 0 +5 -4 -1	35 0 183 636 141	20 0 333 453 128	-15 0 +150 -183 -13	4 0 8 17	2 17 12 17	-2 0 +9 -5 +3	181 0 280 0 280	92 3 512 108 346	-89 +3 +232 +108 +166	19 0 12 0 26	9 13 25 3 40	-10 +13 -13 +3 +14	
+2 +6 +4 +11 +37	1 0 0 2 3	2 3 1 4 17	+1 +3 +1 +2 +14	2 3 17 21 63	4 9 18 49 82	+2 +6 +1 +28 +19	1 1 4 5 17	2 5 4 10 28	+1 +4 0 +5 +11	2 275 72 <b>4</b> 1128	2 144 61 19 259	0 -131 -9 +15 -869	1 71 16 3 125	1 56 13 4 68	0 -15 -3 +1 -57	
+1 -1 0 0 +7	2 4 0 0	2 4 -	0 0 0 0 +1	5 13 0 1 0	10 - - 7	-1 -3 0 -1 +7	3 7 0 1 0	2 5 - 1	-1 -2 0 -1 +1	9 21 0 0	9 12 - 0	0 -9 0 0	5 11 0 0	4 6 - -	-1 -5 0 0	
+5 0 0 +1 +8	0 0 0 1 2	1 3	+1 0 0 0 +1	4 1 0 4 48	5 0 - 5 127	+1 -1 0 +1 +79	1 2 0 1 8	1 - 1 18	0 -2 0 0 +10	0 0 0 0	0 0 - 0 60	0 0 0 0 +48	0 0 0 0 2	- - - 9	0 0 0 0 +7	

TABLE C-1. FY 76 VS. FY 77 COMMON COURSES; ATTE

CDP	SHORT TITLE	CIN		AC/	ADEMIC	ATTRITION				NOI	NACADEMI	ATTRIT	101
				NUMBER		PE	RCENT			NUM	BER	1	PERC
		· · · · · · · · · · · · · · · · · · ·	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY7	7 <b>Δ</b>	FY76	F
6209 6239 6240 6241 6242	SH-A AVA-AT-A1 AVA-AQ-A1 AVA-AX-A1 AVA-TD-A1	A823 0012 C100 2013 C100 2013 C100 2013 C100 2013	0 94 20 45 21	5 147 37 27 22	+5 +53 +17 -18 +1	0 6 5 7 4	1 9 10 7 5	+1 +3 +5 0 +1	0 78 28 59 21	5 80 18 31 13	+5 +2 -10 -28 -8	0 5 7 9 4	:
6244 6245 6246 6260 6261	AFTA-AT-A1 AFTA-AQ-A1 AFTA-AX-A1 BT-A EN-A	C100 2010 C100 2010 C100 2010 A651 0010 A652 0018	21 12 12 0 0	30 9 6 29 0	+9 -3 -6 +29	5 6 6 0	5 7 4 1	0 +1 -2 +1 0	21 6 10 217 35	24 4 8 608 69	+3 -2 -2 +391 +34	5 3 5 7 2	4 2 19
6262 6263 6264 6265 6266	MM-A ET-A1-ETN ET-A1-CTM ET-A1-ETR ET-A2-ETN	A651 0015 A100 0012 A100 0012 A100 0012 A100 0014	0 65 30 76 9	0 88 23 74 30	0 +23 -7 -2 +21	0 5 10 5 1	6 10 5 3	0 +1 0 0 +2	268 52 6 76 28	345 88 18 104 20	+77 +36 +12 +28 -8	5 4 2 5 3	* * * * * * * * * * * * * * * * * * *
6267 6268 6278 6286 6287	ET-A2-CTN ET-A2-ETR AC-A1 BU-A EA-A	A100 0014 A100 0014 C222 2010 A710 0010 A412 0010	8 37 85 2 0	10 18 114 2 0	+2 -19 +29 0 0	3 3 12 1 0	5 2 17 1	+2 -1 +5 0	11 37 27 2 0	6 18 25 2 0	-5 -19 -2 0	4 3 4 1 0	3 2 1 i
6289 6290 6291 6292 6299	CE-A UT-A CM-A EO-A EW-OP-TECH	A721 0018 A720 0012 A610 0022 A730 0010 A102 0155	0 0 0 2 7	0 0 2 0 16	0 0 +2 -2 +9	0 0 0 1 6	- 1 1 -	0 0 +1 -1 +13	1 1 1 4 54	10 2 7 6 8	+9 +1 +6 +2 -46	2 1 1 2 39	2 1 2 10
6300 6301 6302 6319 6320	PC-A CTR-A CTT-A-PREP CTT/ICR/NON MORSE CTT/SPE/NON MORSE	A515 0018 A231 0044 A231 0023 A231 0047 A231 0046	0 128 77 0 0	0 103 123 1	0 -25 +46 +1 +13	0 17 10 0	16 14 1 3	0 -1 -4 +1 +3	0 28 15 0 0	0 56 33 1 4	0 +28 +18 +1 +1	0 4 2 0 0	1
6321 6322 6323 6326 6327	CTI-A2-RUSSIAN CTI-A2-CHI-MAN CTI-A2-VIETNAM CTI-A2-POLISH CTI-A2-BULGAR	A232 0021 A232 0022 A232 0023 A232 0026 A232 0027	1 0 0 0	3 0 0 -	+2 0 0 0	1 0 0 0 0	2	+1 0 0 0	2 3 0 0	1 1 1	-1 -2 +1 0 0	2 9 0 0	1 6 6
6328 6329 6330 6331 6332	CTI-A2-KOREAN CTI-A2-COMMON BL CTI-A2-GERMAN CTI-A2-SPANISH CTI-A2-ROM	A232 0028 A232 0029 A232 0030 A232 0031 A232 0032	0 0 0 3 0	0 0 0 1	0 0 0 -2 0	0 0 0 6	- - 3	0 0 0 -3	0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	

MMO: COURSES; ATTRITION DATA COMPARISON (continued)

CADE"IS ATTRITION					TOTAL AT	TRITION					SETBAC	KS			
R		ERCENT			NUMBER		P	ERCENT			NUMBER		Р	ERCENT	
Δ	FŸ76	FY7	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ
+5 +2 -10 -28 -8	0 5 7 9 4	1 5 5 8 3	+1 0 -2 -1	5 177 49 101 44	10 234 57 56 36	+5 +57 +8 -45 -8	1 11 12 15 8	2 14 15 14 8	+1 +3 +3 -1 0	25 15 8 13 5	16 0 0 0	-9 -15 -8 -13 -5	5 1 2 2 1	3	-2 -1 -2 -2 -1
+3 -2 -2 +391 +34	5 3 5 7 2	4 3 5 19 5	-1 0 0 +12 +3	43 18 20 217 35	55 12 12 608 69	+12 -6 -8 +391 +34	10 9 10 7 2	9 10 8 19 5	-1 +1 -2 +12 +3	190 87 82 740 243	303 61 67 0	+113 -26 -15 -740 -243	38 37 35 22 13	41 41 37	+3 +4 +2 -22 -13
+77 +36 +12 +28 -8	5 4 2 5 3	7 6 8 7 2	+2 +2 +6 +2 -1	268 120 36 157 38	345 198 41 184 50	+77 +78 +5 +27 +12	5 9 12 10 4	7 13 17 12 5	+2 +4 +5 +2 +1	1424 315 63 387 160	0 198 31 168 103	-1424 -117 -32 -219 -57	24 22 20 23 16	13 13 11 10	-24 -9 -7 -12 -6
-5 -19 -2 0	4 3 4 1 0	3 2 4 1	-1 -1 0 0	19 74 115 4 0	14 36 137 4 0	-5 -38 +22 0	7 6 16 2 0	7 4 20 2	0 -2 +4 0	40 253 244 2 1	18 75 317 16 0	-22 -178 +73 +14 -1	14 19 31 1 7	9 8 41 7 -	-5 -11 +10 +6 -7
+9 +1 +6 +2 -46	2 1 1 2 39	7 2 4 2	+5 +1 +3 0 -29	1 1 4 61	10 2 9 6 24	+9 +1 +8 +2 -37	2 1 1 2 43	7 2 5 2 27	+5 +1 +4 0 ~16	0 1 0 2 145	3 0 13 3 99	+3 -1 +13 +1 -46	0 1 0 1 69	2 - 7 1 78	+2 -1 +7 0 +9
0 +28 +18 +1 +4	0 4 2 0 0	9 4 1	0 +5 +2 +1 +1	0 162 92 0 0	0 162 162 2 17	0 0 +66 +2 +17	0 21 12 0 0	24 18 2 4	0 +3 +6 +2 +4	0 695 789 7 81	0 485 686 34 193	0 -210 -103 +27 +112	0 128 70 13 26	58 59 28 37	0 -70 -11 +15 +11
-1 -2 +1 0	2 9 0 0	1 6 6	-1 -3 +6 0	3 3 0 0	6 1 1 -	+3 -2 +1 0	3 9 0 0	4 6 6 -	+1 -3 +6 0	20 0 0 0 0	16 0 0 -	-4 0 0 0	17 0 0 0 0	11 - - -	-6 0 0 0
0 0 0	0 0 0		0 0 0	0 0 0 3	0 0 0 1	0 0 0 -2 0	0 0 0 6	- - 3	0 0 0 -3	0 0 0 1 0	5 0 0 0	+5 0 0 -1 0	0 0 0 2 0	22 - - - -	+22 0 0 -2 C

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TABLE C-1. FY 76 VS. FY 77 COMMON COURSES:

CDP	SHORT TITLE	CIN		AC	ADEMIC	ATTRITION				NOM	ACADEMI	C ATTRITIO
			Ņ	UMBER		P	ERCEN	IT	N	UMBER	}	PE
			FY76	FY7	7 <b>Δ</b>	FY76	FY7	7 <b>Δ</b>	FY76	FY7	7 <b>Δ</b>	FY76
6333	CTI-A2-SERBO-CRO	A232 0033	0	0	0	0	-	0	0	0	0	0
6337	UWFT-CLASS A	A130 0138	0	4	+4	0	4	+4	0	2	+2	0
6339	HTA-PH2	A700 0010	0	ŋ	0	0	-	0	2	22	+20	1
6340	HT MAINT	A790 0013	0	-	0	0	-	0	0	-	0	0
6345	SCAT-MOD-5	A100 0052	0	0	0	0	-	0	0	0	0	0
6346	SCAT-MOD-4	A100 0051	0	2	+2	0	5	+5	0	1	+1	0
6347	SCAT-MOD-3	A100 0050	0	0	0	0	-	0	0	1	+1	0
6501	ADJ-A1	C601 2010	102	136	+34	4	5	+]	76	54	-22	3
6502	ADR-A1	C601 2012	3	-	-3	1	-	-1	3	-	<b>-</b> 3	1
6506	AO-A1	C646 2010	17	32	+15	1	2	+1	103	64	-39	6
6512	ABF-A1	C821 2010	0	4	+4	0	1	+1	3	3	+5	1
6513	ABE-A1	C680 2J12	3	22	+19	1	6	+5	3	4	+]	1
6515	AE-A1	C602 2012	44	34	-10	2	2	0	67	52	-15	3
6516	AME-A1	C602 2015	8	13	+5	1	2	+1	33	19	-14	4
6517	AMH-A1	C602 2017	33	15	-18	2	ī	-1	67	44	-23	4
6518	AMS-A1	C603 2010	15	21	+6	1	1	0	75	84	+9	5
6519	PR-BASIC	C602 2010	5	6	+1	Ţ	1	0	10	30	+20	2
6520	AG-A1	C420 2010	6	12	+6	2	4	+2	6	15	+9	2
6521	TD-A1	C191 2010	4	0	-4	1	-	-1	4	4	0	1
6522	AK-A	C551 2010	8	0	-8	3	-	-3	11	14	+3	4
6523	PH-LEVEL 1	C400 2010	18	30	+12	5	8	+3	7	4	-3	2
6527	ABH-A1	C822 2010	0	0	0	0	-	0	0	4	+4	0
6528	AZ-A1	C516 2010	14	17	+3	3	3	0	5	11	+6	1
6529	IS-A	A242 0010	9	28	+19	4	10	+6	2	11	+9	ן
6530	ASE-A1	C602 2019	2	0	-2	1	-	-1	5	4	-1	3
6536	TM-AS-TORP-TECH	A123 0127	0	12	+12	0	14	+14	0	0	0	0
6537	AW-A1	C210 2010	44	57	+13	6	10	+4	44	28	-16	6

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FY 77 COMMON COURSES: ATTRITION DATA COMPARISON (continued)

NONACADEM:	NONACADEMIC ATTRITION				TOTAL ATTRITION							SETBA	CKS		
IMBER	Р	ERCEN	ĮŢ_		NUMBE	R		PERCEN	IT		NUMBER	₹	F	PERCEN	T
FY77 <b>△</b>	FY76	FY7	77 <b>Δ</b>	FY76	5 FY	77 <b>Δ</b>	FY76	5 FY	77 <b>Δ</b>	FY7	6 FY	77 <b>Δ</b>	FY76	5 FY	77 <b>Δ</b>
0 0 2 +2 22 +20 - 0 0 0	0 0 1 0	2 2 -	0 +2 +1 0	0 0 2 0 0	0 7 22 - 0	0 +7 +20 0	0 0 1 0	- 6 2 -	0 +6 +1 0	0 0 9 0	0 1 22 - 0	0 +1 +13 0 0	0 9 5 0	1 2 -	0 +1 -3 0 0
1 +1 1 +1 54 -22 3 64 -43	0 0 3 1 6	3 2 2 - 4	+3 +2 -1 -1	0 0 155 5 121	3 1 193 - 97	+3 +1 +38 -5 -24	0 0 6 2 7	8 2 7 - 6	+8 +2 +1 -2 -1	0 0 0 10 289	0 0 0 - 488	0 0 0 -10 +199	0 0 0 4 16	- - - - 27	0 0 0 -4 +11
8 45 4 41 52 -15 19 -14 44 -23	1 1 3 4 4	2 1 3 3 3	+1 0 0 -1 -1	3 5 113 33 102	16 26 87 26 60	+13 +21 -26 -7 -42	1 2 5 4 6	4 7 5 4 4	+3 +5 0 0 -2	13 51 305 50 191	21 38 379 109 220	+8 -13 +74 +59 +29	4 18 13 6 11	5 10 20 16 14	+1 -8 +7 +10 +3
84 +9 30 +20 15 +9 4 0 14 +3	5 2 2 1 4	4 5 5 1 3	-1 +3 +3 0 -1	91 15 9 4 17	106 36 27 4 14	+15 +21 +18 0 -3	6 3 3 1 6	5 6 9 1 3	-1 +3 +6 0 -3	91 117 51 0 28	409 231 82 0 0	+318 +114 +31 0 -28	6 21 16 0 10	18 33 25 -	+12 +12 +9 0 -10
4 -3 4 +4 11 +6 11 +9 4 -1	2 0 1 1 3	1 1 2 4 2	-1 +1 +1 +3 -1	26 0 19 13 7	34 4 28 40 4	+8 +4 +9 +27 -3	7 0 4 6 4	9 1 5 14 2	+2 +1 +1 +8 -2	22 19 24 6 5	22 26 28 22 8	0 +7 +4 +16 +3	6 5 5 3 3	6 6 5 8 4	0 +1 0 +5 +1
0 0 28 -16	0 6	- 5	0 -1	0 92	12 88	+12 -4	0 12	14 15	+14 +3	0 224	6 119	+6 -25	0 27	7 31	+7 +4

APPENDIX D

FY 76 VS. FY 77 COMMON COURSES; ATTRITION COST DATA COMPARISON

TABLE D-1. FY 76 VS. FY 77 COMMON COURSES; ATTRIT

		1		OTAL COS (X 1000		0	TOTAL ATTRITIO		
CDP	SHORT TITLE	CIN	FY76	FY77	Δ	FY76	FY77	Δ	F١
130E 340S 532R 541U 1300	NUC PWR AVR-A1 MALRE-A SQS 53 OP BASIC NUC PWR	A661 0010 C100 2014 C680 2015 A130 0103 A661 0010	1004.8 379.7 30.5 6342.3	- 718 290 422 -	-286.8 - 89.7 +391.5	- 117.3 9.1 0 952.5	35.8 3.5 5.6	-81.5 - 5.6 + 5.6	8; ( 93!
1301 2053 3197 3522 3585	NUC PWR CTT-FLR 11/15 OPS CTT ELINT OP AVCC-AL BASNEL-AL	A661 0010 A231 0024 A231 0028 C780 2010 C600 2010	6400.7 255.4 47.8 478.1 1606.7	- 103 511 501 1364	-152.4 +463.2 + 22.9 -242.7	978.5 1.5 - 5.9 39.7	2.6 17.4 2.4 27.8	+ 1.1 - 3.5 -11.9	67; ( ( 1!
3806 5261 5309 6001 6002	ET SEIR SCAT-MOD-2 SCAT-MOD-1 QM-A QM-A	A104 0012 A100 0036 A100 0035 A061 0012 A061 0012	1913 - - 930.5 511.6	- - - 1356 567	- - +425.5 + 55.4	5.2 - 6.8 15.6	- - - 114.2 51.0	- - +107.4 + 35.4	(
6005 6006 6015 6020 6025	SM-A SM-A SURF-ST-CLASS A CTA-A GMT-A	A061 0011 A061 0011 A130 0037 A510 0015 A644 0014	858.9 458.6 3105.5 615.4	1282 533 3698 590	+423.1 + 74.4 +592.5 - 25.4	30.2 24.2 141.5 53.8	77.6 67.2 220.8 72.2	+47.4 +43.0 +79.3 +18.4	24 15 111 38
6027 6034 6076 6041 6046	FTA-A TM-SS-TORP-OP TM-OP-AIS-TORPA MN-A IM-A	A113 0010 A123 0127 A123 0127 A647 0016 A670 0010	10831.6 889 441 1256.6 529.2	3284 424 609 689 588	-7547.6 - 465.0 + 168.0 - 567.6 + 58.8	421 16 7.9 113.3 22.5	173.7 13.4 31.1 66.6 18.7	-247.3 - 2.6 + 23.2 - 46.7 - 3.8	22 <sub>1</sub> 8
6047 6053 6057 6059 6061	QM-A CTO-A YN-A SK-CLASS A DK-A	A670 0018 A580 0016 A510 0012 A551 0014 A542 0011	394.0 2945.4 2659.1 3008.8 954.7	389 2468 2526 2813 615	- 5.0 - 477.4 - 133.1 - 195.8 - 339.7	14.6 146.1 343.8 2.1 2.4	36.3 148.1 168.0 78.9 21.6	+ 21.7 + 2.0 -175.8 + 76.8 + 19.2	9 24
6063 6065 6068 6070 6071	INFO SPEC JO A1 MUSIC BASIC MR/A EM/A EM/A	A570 0011 A450 0010 A702 0019 A662 0016 A662 0016	4840.4 1772.1 3720.3 2555.1	4628 1665 5337	- 212.4 - 107.1 +1616.7	516.6 40.8 101.4 21.3	425.7 64.1 55.3	- 90.9 + 23.3 - 46.1	29 3 3
6073 6076 6077 6078 6079	IC-A PM-A ML-A EA-A CE-A	A623 0012 A790 0012 A790 0010 A412 0010 A721 0018	2358.8 321.6 218.8 247.9 701.6	2349 331 270 82 348	- 9.8 + 9.4 + 51.2 - 165.9 - 353.6	15.9 7.5 7.5 1.6 9.5	26.2 13.1 6.3 0.0 5.7	+ 10.3 + 5.6 - 1.2 - 1.6 - 3.8	

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FY 77 COMMON COURSES; ATTRITION COST DATA COMPARISON

	TOTAL ATTRITIC		A <sup>-</sup>	ACADEMIC TTRITION T (X 100	Į	1	ONACADEMIC ATTRITION ST (X 1000		COST	PER GRAD	UATE
76	FY77	Δ	FY76	FY77	Δ	FY76	F <b>Y</b> 77	Δ	FY76	FY77	Δ
7.3 9.1 0 2.5	35.8 3.5 5.6	-81.5 - 5.6 + 5.6	- 83.8 9.1 0 939.4	- 27.5 0 0	- 56.3 - 9.1	- 33.5 0 0 313.1	8.3 3.5 5.6	-25.2 + 3.5 + 5.6	1513 3651 2030 8559	- 2163 3668 2851	+ 650 + 17 + 821
3.5 1.5 - 5.9 9.7	2.6 17.4 2.4 27.8	+ 1.1 - 3.5 -11.9	677.5 0 - 0 15.9	2.6 17.4 0 6.5	+ 2.6 - 0 - 9.4	301.1 1.5 5.9 23.8	0 0 2.4 21.3	- 1.5 - 3.5 - 2.5	8559 2202 - 1568 2457	2011 7194 2043 1918	- 191 - 475 - 539
5.2 - 6.8 5.6	- - - 114.2 51.0	- - +107.4 + 35.4	0 - - 6.8 7.8	- - 86.6 43.7	- - - +79.8 +35.9	5.2 - 0 7.8	- - 27.6 7.3	- - +27.6 - 0.5	5960 - 1512 1560	- - 2562 1649	- - - +1050 + 89
0.2 4.2 1.5 3.8	77.6 67.2 220.8 72.2	+47.4 +43.0 +79.3 +18.4	24.2 19.8 113.2 38.4	23.1 45.1 147.2 46.2	- 1.1 + 25.3 + 34.0 + 7.8	6.0 4.4 28.3 15.4	54.4 22.0 73.6 26.0	+48.4 +17.6 +45.3 +10.6	1577 1587 2412 2772 -	2489 1720 3152 4278	+ 91 + 133 + 740 +1506
1 5 7.9 3.3 2.5	173.7 13.4 31.1 66.6 18.7	-247.3 - 2.6 + 23.2 - 46.7 - 3.8	226.7 8.0 0 88.7 9.6	108.0 10.0 28.1 25.6 8.0	-118.7 + 2.0 + 28.1 - 63.1 - 1.6	194.3 8.0 7.9 24.6 12.9	65.7 3.3 3.0 41.0 10.7	-128.6 - 4.7 - 4.9 + 16.4 - 2.2	3583 1902 1902 6868 4725	3836 3448 3170 7027 7352	+ 253 +1546 +1268 + 159 +2627
4.6 6.1 3.8 2.1 2.4	36.3 148.1 168.0 78.9 21.6	+ 21.7 + 2.0 -175.8 + 76.8 + 19.2	4.6 91.3 246.6 1.6 1.9	16.8 98.8 98.4 31.8 10.8	+ 12.2 + 7.5 -148.2 + 30.2 + 8.9	10.0 54.8 97.2 .5	19.6 49.4 69.6 47.1 10.8	+ 9.6 - 5.4 - 27.6 + 46.6 + 10.3	4582 5077 2435 2096 3604	6832 7050 2255 2035 2675	+2250 +1973 - 180 - 61 - 929
5.6 0.8 1.4	425.7 64.1 55.3	- 90.9 + 23.3 - 46.1	290.6 30.6 33.8 0	285.6 47.0 0.0	- 5.0 + 17.6 - 33.8	226.0 10.2 67.6 21.3	140.1 17.1 55.3	- 85.9 + 6.9 - 12.3	5769 2885 2501 2129	7738 3364 2847	+1969 + 479 + 346
5.9 7.5 7.5 1.6 9.5	26.2 13.1 6.3 0.0 5.7	+ 10.3 + 5.6 - 1.2 - 1.6 - 3.8	0 5.8 5.8 0 2.8	8.7 9.8 4.8 0.0 0.0	+ 8.7 + 4.0 - 1.0 0 - 2.8	15.9 1.7 1.7 1.6 6.7	17.4 3.3 1.6 0.0 5.7	+ 1.5 + 1.6 - 0.1 - 1.6 - 1.0	2233 7482 5919 4679 3508	2382 8497 5630 6839 4521	+ 149 +1015 - 289 +2160 +1013

TABLE D-1. FY 76 VS. FY 77 COMMON COURSES; ATTRITION

			1	TOTAL COST (X 1000)			TOTAL ATTRITION SI (X 1000	1)
CDP	SHORT TITLE	CIN	FY76	FY/7	Δ	FY76	FY77	Δ
6081 6082 6083 6093 6097	BU-A SW-A UT-A TM SUB/TORP TECH EO-A	A710 0010 A711 0015 A720 0012 A123 0127 A730 0010	854.1 400.5 608.9 381 1560.9	862 474 445 532 1402	+ 7.9 + 73.5 - 163.9 + 151.0 - 158.9	0 9.2 5.3 6.9 8.9	0 7.3 0.0 39.9 25.9	0 - 1.9 - 5.3 + 33.0 + 17.0
6102 6103 6106 6108 6115	PN-A OT-A HT-A2 FT-A2 GM-A	A500 0014 A210 0011 A700 0010 A113 0019 A041 0010	2305.5 4356.4 5602.6 - 4745.6	2121 2980 2136 1630	- 184.5 -2622.6 -3115.6	255.7 34.2 0 - 281.8	114.3 56.0 10.9 48.3	-14i.4 + 56.0 -233.5
6118 6119 6120 6121 6122	SQQ 23 PAIR OP-BAS HT-A1 HT-A1 CTI-A2-THAI CTI-A2-HEBREW	A130 0097 A780 0035 A780 0035 A232 0043 A232 0041	182 2509.1 2215.7 -	332 1529 - - -	+ 150.0 - 980.1 -	0 7.2 10.2 -	18.8 0.0 - -	+ 18.8 - 7.2 - -
6123 6125 6126 6131 6135	CTI-A2-ARABIC MS-A QRTR-MSTR BASE DS-A ET-A-3R	A232 0042 A800 0013 A772 0010 A150 0025 A104 0010	4436.7 97.2 - 1992	4443 139 - 2571	+ 6.3 + 41.8 + 579.0	78.3 3.4 - 373.6	231.1 51.1 57.1	+152.8 + 47.7 -316.5
6137 6140 6142 6144 6146	ET-A-3N CTI-A2-FRENCH OSA RMA PLRS-POS-ELECT-A	A102 0010 A232 0040 A221 0011 A202 0014 A121 0142	1880 - 9216.9 13351.9 5907.2	2937 - 7840 9693 4624	+1057 -1376.9 -3658.9 -1283.2	293.9 - 300.2 872.6 18.4	92.0 - 609.6 786.9	-291.9 -309.4 -85.7
6149 6161 6167 6172 6178	CM-A CTM-A DP-A STS-CLASS A EW-OP-MAINT/TECH	A610 0022 A102 0109 A531 0016 A130 0029 A102 0154	917.2 1065.7 1125.4 3016.2 6388.4	897 1385 1115 1488 6976	- 20.2 + 319.3 - 10.4 -1528.2 + 587.6	8.2 14.8 18.8 106.0 588.2	5.6 28.9 25.0 133.1 40.5	- 2.6 + 14.1 + 6.2 + 27.1 -547.7
6182 6183 6184 6193 6194	ASH-A1 ASM-A1 INTRO WELD MK-111-UP-BAS MK-114-OP-BAS	C602 2023 C602 2024 A700 0011 A130 0088 A130 0083	681.6 703.8 16.6 89.1 615.4	630 587 - - 706	- 51.6 - 116.8 - + 90.6	2.8 3.0 - 2.3 0	7.0 17.1 - - 9.4	- 4.2 + 14.1 - + 9.4
6195 6196 6197 6198 6206	SQS-DG-OP-BAS SQS-35V-38 OP-BAS SQS-26-BX-OP-BAS SQS-26-CX/AXR SH-A	A130 0084 A130 0085 A130 0092 A130 0086 A823 0012	457.2 527.1 63.4 431.0 900.2	953 118 - 1027 814	+ 495.8 - 409.1 + 596.0 - 86.2	0 0.4 0 2.4 21.6	11.7 0 - 14.3 128.4	+ 11.7 - 0.4 - + 11.9 +106.8

DMMON COURSES; ATTRITION COST DATA COMPARISON (continued)

TOTAL TRITION (X 1000)		ADADEMIC ATTRITION COST (X 1000)			A	NACADEMIC		CO.	ST PER GRAD	UATE
FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ
0 7.3 0.0 39.9 25.9	0 - 1.9 - 5.3 + 33.0 + 17.0	0 1.5 0 0 2.2	0 0.6 0 34.2 4.6	0 - 0.9 0 + 34.2 + 2.4	0 7.7 5.3 6.9 6.7	0 6.7 0.0 5.7 21.3	0 - 1.0 - 5.3 - 1.2 + 14.6	3936 4171 5486 1902 5051	3882 3317 7951 3642 5155	- 54 - 854 +2465 +1740 + 104
14.3 - 56.0 10.9 48.3	-141.4 + 56.0 -233.5	177.0 24.9 0 - 131.5	45.7 - 0.0 0.0 0.0	-131.3 0 -131.5	78.7 9.3 0 - 150.3	68.6 - 56.0 10.9 48.3	- 10.1 + 56.0 -102.0	2387 5036 2209 - 3546	2313 - 2479 3322 2869	- 74 + 270 - 677
18.8 0.0 -	+ 18.8 - 7.2 -	0 0 0 -	12.5 0.0 - -	+ 12.5	0 7.2 10.2	6.3	+ 6.3 - 7.2 -	2461 1256 1858	4197 1197 - -	+1736 - 59 - -
31.1 51.1	+152.8 + 47.7	78.3 1.0	- 154.8 28.8	+ 76.5 + 27.8	- 0 2.4	76.2 22.4	+ 76.2 + 20.0	1821 3037	2299 2446	+ 478 - 591
57.1	-316.5	124.5	0.0	-124.5	249.1	57.1	-192.0	2540	2921	+ 381
92.0	-291.9	117.6	<b>46.</b> 0	- 71.6	176.3	46.0	-130.3 -	2540	2966 -	+ 426 -
09.6 86.9	+309.4 - 85.7	112.6 387.8 9.8	268.7 424.0 -	+156.1 + 36.2	187.6 484.8 8.6	340.9 363.0	+153.3 -121.8 -	4021 4555 5747	4664 2900 -	+ 643 -1655 -
5.6 28.9 25.0 33.1 40.5	- 2.6 + 14.1 + 6.2 + 27.1 -547.7	0 14.8 18.8 63.6 484.4	0 11.6 19.1 80.4 17.3	0 - 3.2 + 0.3 + 16.8 -467.1	8.2 0 0 42.4 103.8	5.6 17.3 5.9 52.7 23.2	- 2.6 + 17.3 + 5.9 + 10.3 - 80.6	5558 4037 2501 4274 17503	4850 8097 2693 3235 16376	- 708 +4060 + 192 -1039 -1127
7.0 17.1	- 4.2 + 14.1	0.9 1.3	0 3.4	- 0.9 + 2.1	1.9 1.7	7.0 13.6	+ 5.1 + 11.9	3872 4069 1187	3042 3432	- 830 - 637
9.4	+ 9.4	2.3 0	0	0	0 0	- 9.4	+ 9.4	781 1584	955	- 629
11.7 0	+ 11.7 - 0.4	0 0.4 0	0 0 -	- 0.4	0 0 0	11.7 0 -	+ 11.7 0 -	1252 824 1219	2085 1556	+ 833 + 732
14.3 28.4	+ 11.9 +106.8	0 16.8	0 107.7	0 + 90.9	2.4 4.8	14.3 20.7	+ 11.9 + 15.9	1418 1127	2078 1461	+ 660 + 334

TABLE D-1. FY 76 VS. FY 77 COMMON COURSES; ATTRITION C

			TOTAL COST (X 1000)				TOTAL ATTRITION ST (X_1000	1)	
CDP	SHORT TITLE	CIN	FY76	FY77	Δ.	FY76	FY77	Δ	FY76
6209 6239 6240 6241 6242	SH-A AVA-AT-A1 AVA-AQ-A1 AVA-AX-A1 AVA-TD-A1	A823 0012 C100 2013 C100 2013 C100 2013 C100 2013	611.4 7236 1872 3036 2594	523 8257 1993 1971 2311	- 88.4 +1021 + 121 1065 - 283	0 281.6 72.8 126 101	11.1 774.6 206.2 184.2 158.9	+ 11.1 +493.0 +133.4 + 58.2 + 57.9	0 153 30 55 50
6244 6245 6246 6260 6261	AFTA-AT-AI AFTA-AQ-A; AFTA-AX-AI BT-A EN-A	C100 2010 C100 2010 C100 2010 A651 0010 A652 0018	4857 2311 2226 6191.8 1596.1	5550 1120 1404 5128 1357	+ 693 -1191 - 822 -1063.8 - 239.1	254 120.9 128.1 264 76.8	278.3 45.9 49.5 190.9 11.8	+ 24.3 - 75.0 - 78.6 - 73.1 - 65.0	127. 80. 69. 0
6262 6263 6264 6265 6266	MM-A ET-A1-ETN ET-A1-CTM ET-A1-ETR ET-A2-ETN	A651 0015 A100 0012 A100 0012 A100 0012 A100 0014	2967.7 4700 1141 588 2574	9578 4263 663 4323 2946	+6610.3 - 437.0 - 478.0 +3735.0 + 372.0	126.5 587.7 142.7 736 321.9	534.8 396.8 74.0 375.1 114.7	+408.3 -190.9 - 68.7 -360.9 -207.2	0 326 118. 368. 80.
6267 6268 6278 6286 6287	ET-A2-CTN ET-A2-ETR AC-A1 BU-A EA-A	A100 0014 A100 0014 C222 2010 A710 0010 A412 0010	716 3447 4781.8 838.4 121.7	588 2670 3755 780 91	- 128.0 - 777.0 -1026.8 - 58.4 - 30.7	89.6 431 448 4.4 0	48.7 99.3 354.5 10.6 0	- 40.9 -331.7 - 93.5 + 6.2	38. 215. 336. 2. 0
6289 6290 6291 6292 6299	CE-A UT-A CM-A EO-A EW-OP-TECH	A721 0018 A720 0012 A610 0022 A730 0010 A102 0155	238.1 464.8 469.0 1025.3 958.1	730 494 955 1099	+ 491.9 + 29.2 + 486.0 + 73.7	8.3 10.7 3 11 95	9.6 6.1 7.0 2.2	+ 1.3 - 4.6 + 4.0 - 8.8	4 0 0 3 12
6300 6301 6302 6319 6320	PC-A CTR-A CTT-A-PREP CTT/ICR/NON MORSE CTT/SPE/NON MORSE	A515 0018 A231 0044 A231 0023 A231 0047 A231 0046	4624.5 3389 163.1 406.5	- 4824 4291 361 1088	+ 199.5 + 902.0 + 197.9 + 681.5	1492.2 403.7 0	837.2 767.7 0 20.9	- 655.0 - 364.0 0 + 20.9	1208 336 0 0
6321 6322 6323 6326 6327	CTI-A2-RUSSIAN CTI-A2-CHI-MAN CTI-A2-VIETNAM CTI-A2-POLISH CTI-A2-BULGAR	A232 0021 A232 0022 A232 0023 A232 0026 A232 0027	- - - -	- - - -	- - - -	- - - -	- - -	-	- - -
6328 6329 6330 6331 6332	CTI-A2-KOREAN CTI-A2-COMMON BL CTI-A2-GERMAN CTI-A2-SPANISH CTI-A2-ROM	A232 0028 A232 0029 A232 0030 A232 0031 A232 0032	- - - -	- - -	- - - -	-	- - - -	-	- - -

MON COURSES; ATTRITION COST DATA COMPARISON (continued)

AL FION 1000)	<u></u>	ACADEMIC ATTRITION COST (X 1000)				NONACADEM: ATTRITION OST (X 100	V	COS	ST PER GRAD	UATE
7	Δ	FY76	FY77	Δ	FY76	FY7 <b>7</b>	Δ	FY76	FY77	Δ
.1 .6 .2 .2	+ 11.1 +493.0 +133.4 + 58.2 + 57.9	0 153.6 30.3 55.1 50.5	5.6 501.6 138.7 85.7 99.9	+ 5.6 +348 +107.5 + 30.6 + 49.4	0 128.0 42.5 70.9 50.5	5.6 273.0 67.5 98.4 59.0	+ 5.6 +145.0 + 25.0 + 28.5 + 8.5	923 4554 4554 4554 4554	1033 5753 6305 5569 5475	+ 110 +1199 +1851 +1015 + 921
3 9 5 9 8	+ 24.3 - 75.0 - 78.6 - 73.1 - 65.0	127.0 80.6 69.9 0	154.6 31.8 21.2 8.7 0	+ 27.6 - 48.8 - 48.7 + 8.7	127.0 40.3 58.2 264 76.8	123.7 14.1 28.3 182.2 11.8	- 3.3 - 26.2 - 29.9 - 81.8 - 65.0	8372 8372 8372 1583 769	10818 8238 8830 2028 1021	+2446 + 134 + 458 + 445 + 252
8 8 0 1 7	+408.3 -190.9 - 68.7 -360.9 -207.2	0 326.5 118.9 368.0 80.5	0 198.4 41.5 156.0 86.8	0 -128.1 - 77.4 -212.0 + 6.3	126.5 261.2 23.8 368.0 241.4	534.8 198.4 32.5 219.2 57.9	+408.3 - 62.8 + 8.7 -148.8 -183.5	1583 2540 2540 2540 2540	2103 3045 2986 3119 2966	+ 520 + 505 + 446 + 579 + 426
7 3 5 6	- 40.9 -331.7 - 93.5 + 6.2 0	38.4 215.5 336.0 2.2 0	30.4 49.6 290.7 5.3 0	- 8.0 -165.9 - 45.3 + 3.1	51.2 215.5 112.0 2.2 0	18.2 496 63.8 5.3	- 33.0 +280.5 - 48.2 + 3.1	2540 2540 8921 4631 5532	3094 3006 7125 3733 6975	+ 554 + 466 +1796 - 898 +1443
6 1 0 2	+ 1.3 - 4.6 + 4.0 - 8.8	4.0 0 0 3.8 12.7	0 0 1.5 0	- 4.0 0 + 1.5 - 3.8	4.3 10.7 3.0 7.2 82.3	9.6 6.1 5.4 2.2	+ 5.2 - 4.6 + 2.4 - 5.0	4491 5533 6798 5728 7313	5937 4495 5335 3340	+1446 -1038 -1463 -2388
2 7 9	- 655.0 - 364.0 0 + 20.9	1208.0 336.4 0	542.3 605.3 0 16	-665.7 +268.9 0 + 16.0	284.2 67.3 0	294.9 162.4 0 4.9	+ 10.7 + 95.1 0 + 4.9	8347 4157 4180 1494	10307 6541 3644 2733	+1960 +2384 - 536 +1239
	- - -	- - - -	- - -	- - -	- - -	:	- - -	- - -	- - -	- - -
	-	- - -	- - -	- - -	-	•	-	-	- - -	- - -
	-	-	-	-	-	-	-	-	-	-

TABLE D-1. FY 76 VS. FY 77 COMMON COURSES; ATTRITION COST

				OTAL COS (X 1000)		, Ci	TOTAL ATTRITION OST (X.10	     (1000)		AC ATT ST
CDP	SHORT TITLE	CIN	FY76	FY77	Δ	FY76	FY77	Δ	FY76	
6333 6337 6339 6340	CTI-A2-SERBO-CRO UWFT-CLASS A HTA-PH2 HT MAINT	A232 0033 A130 0138 A700 0010 A790 0013	- 555.7 3	- 570 2274 -	+1718.3	- 2.5 0	130.4 29.9	+27.4	- 0 0	
6341	OT-A	A210 0011	-	1818	-	-	321	-	-	2
6343 6344 6345 6346 6347	SCAT MODS 3-6 SCAT MOD 6 SCAT-MOD-5 SCAT-MOD-4 SCAT-MOD-3	A101 0134 A100 0053 A100 0052 A100 0051 A100 0050	-	92 86 77 84 116	- - - -	- - - -	1.9 13.1 0 23.2 6.7	• • • •	- - - -	
 6376 6377 6378 6380 6381	FTG-A2 FTG-A1 GMT ASROC A RM A SEA RM A SHORE	A113 0019 A113 0010 A041 0010 A202 0026 A202 0027	- - - -	1294 2763 311 2490 2149	- - - -	- - - -	14.3 168.7 50.7 15.7 10.8	- - - -	- - - -	1
6400 6401 6402 6418 6419	GMG A BQQ-2 BAS OP OA-1283 BAS OP DIVERS SECOND SCUBA DIVER	A041 0010 A130 0189 A130 0188 A433 0022 A433 0023	- - - -	3508 227 605 -	- - - -	- - - - -	121.2 4.0 1.3 -	- - - -	- - - -	
6444 6451 6452 6457 6473	I IN STS "A" EW CM TECH RES EM CM TECH ET(SU) EW TECH AG A1	A130 0204 A102 0214 A102 0214 A102 0224 C420 2010	- - - -	1007 - - -	- - - -	- - - -	391.0	- - - -	- - - -	į
6476 6478 6501 6502 6506	EW FUND/PM TECH CTM EW TECH ADJ-A1 ADR-A1 AO-A1	A102 0209 A102 0234 C601 2010 C601 2012 C646 2010	- 549.8 780.5 5010.6	1690 - 4492 - 4206	3942.2 - 804.6	- 199.4 6.8 119.1	427.4 - 178.5 - 128.8	- -20.9 - + 9.7	- 113.9 3.4 17.0	2
6512 6513 6515 6516 6517	ABF-A1 ABE-A1 AE-A1 AME-A1 AMH-A1	C821 2010 C680 2012 C602 2012 C602 2015 C602 2017	996.8 1169.5 6694.1 2097.8 4043.9	802 1100 5424 2230 2865	- 194.8 - 69.5 -1270.1 + 132.2 -1178.9	15.8 21.2 190.5 76.6 145.5	10.3 41.2 136.6 57.7 84.9	- 5.5 +20.0 -53.9 -18.9 -60.6	0 10.6 76.2 15.3 48.5	
6518 6519 6520 6521 6522	AMS-A1 PR-BASIC AG-A1 TD-A1 AK-A	C603 2010 C602 2010 C420 2010 C191 2010 C551 2010	4363.5 2010.4 1980.2 805.6 621.7	5226 2489 2079 1096	+ 862.5 + 478.6 + 98.8 + 290.4	112 81.4 50 12 3	187.1 76.3 70.8 12.8	+75.1 - 5.1 +20.8 + 0.8	18.7 27.1 25.0 6.0 1.3	

77 COMMON COURSES; ATTRITION COST DATA COMPARISON (continued)

TOTAL ATTRITION COST (X 10			ACADEMIC ATTRITION ST (X 100	l		NONACADEMIC ATTRITION ST (X 1000)		COST PER GRADUAT		
FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ
130.4 29.9	+27.4	- 0 0	- 86.9 0	- 0 -	- 2.5 0	43.5 29.9	+27.4	- 5097 1019	5939 2031	- -3066
321	-	-	233.5	-	•	87.5	-	-	23304	-
1.9 13.1 0 23.2 6.7	-	- - -	0 6.6 0 15.5 0	- - - -	-	1.9 6.5 0 7.7 6.7	- - - -	- - - -	2196 2200 2340 2145 2363	- - - -
14.3 168.7 50.7 15.7 10.8	-	- - - -	3.8 101.8 0 0	- - - -	-	10.5 66.9 50.7 15.7 10.8	- - - -	-	3545 2763 3495 1431 1225	- - - -
121.2 4.0 1.3	-	- - - -	0 4.0 0	- - - -	:	121.2 0 1.3	- - - -	- - - -	3619 2048 1763 - -	- - - -
391.0 - -		- - - -	317.7	- - -		73.3	- - - -	- - - -	- 10708 - - -	- - -
427.4	-	-	256.4	_	-	171.0	_	_	46954	_
178.5 128.8	-20.9 + 9.7	113.9 3.4 17.0	127.7 42.9	+13.8	85.5 3.4 102.1	50.7 85.9	-34.8 -16.2	1767 2410 3037	1772 2796	+ 5 - -241
10.3 41.2 136.6 57.7 84.9	- 5.5 +20.0 -53.9 -18.9 -60.6	0 10.6 76.2 15.3 48.5	3.4 34.9 54.0 23.4 21.6	+ 3.4 +24.3 -22.2 + 8.1 -26.9	15.8 10.6 114.3 61.3 97.0	6.9 6.3 82.6 34.2 63.3	- 8.9 - 4.3 -31.7 -27.1 -33.7	1706 3241 3532 3550 2653	2089 3385 3448 3785 2050	+383 +144 - 84 +235 -603
187.1 76.3 70.8 12.8	+75.1 - 5.1 +20.8 + 0.8	18.7 27.1 25.0 6.0 1.3	37.4 12.7 31.4 0	+18.7 -14.4 + 6.4 - 6.0	93.3 54.3 25.0 6.0 1.7	149.7 63.5 39.4 12.8	+66.4 + 9.2 +14.4 + 6.8	3158 5153 6691 2051 2656	2662 4397 6379 2531	-496 -756 -312 +480

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TABLE D-1. FY 76 VS. FY 77 COMMON COURSES; ATTRITIO

CDP	SHORT TITLE	CIN		OTAL COST (X 1000)	TOTAL ATTRITION COST (X 1000)			A: COS:
			FY76	FY77 🛆	FY76	FY77	Δ	FY76 .
6523 6527 6528 6529 6530	PH-LEVEL 1 ABH-A1 AZ-A1 IS-A ASE-A1	C400 2010 C822 2010 C516 2010 A242 0010 C602 2019	1489.5 1163.0 966.0 802.3 664.2	792 - 371.0 1059 + 93.0 607 - 195.3 588 - 76.2	216.7 0 32 18.8 2.4	6.3 23.4 15.2 6.4	+6.3 - 8.6 - 3.6 - 4.0	154.8 0 24.0 15.0 0.6
6536 6537	TM-AS-TORP-TECH AW-A1	A123 0127 C210 2010	96 3102.1	241 + 145.0 1954 -1148.1	0 160.2	18.3 148.6	+18.3 -11.6	0 80.1

# ON COURSES; ATTRITION COST DATA COMPARISON (continued)

) (00)	ACADEMIC ATTRITION COST (X 1000)			NONACADEMIC ATTRITION COST (X_1000)			COST PER GRADUATE		
Δ	FY76	FY77	Δ	FY76	FY77	Δ	FY76	FY77	Δ
•	154.8	_	_	61.9	-	-	4627	_	-
+6.3	0	0	0	0	6.3	+ 6.3	1836	1951	+ 115
- 8.6	24.0	14.2	- 9.8	8.0	9.2	+ 1.2	2236	1946	- 290
- 3.6	15.0	10.9	- 4.1	3.8	4.3	+ 0.5	3303	2605	- 698
- 4.0	0.6	0	- 0.6	1.8	6.4	+ 4.6	3669	3064	- 605
+18.3	0	0	0	0	18.3	+18.3	1902	3305	+1403
-11.6	80.1	99.6	+19.5	80.1	49.0	-31.1	4375	3869	- 506

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